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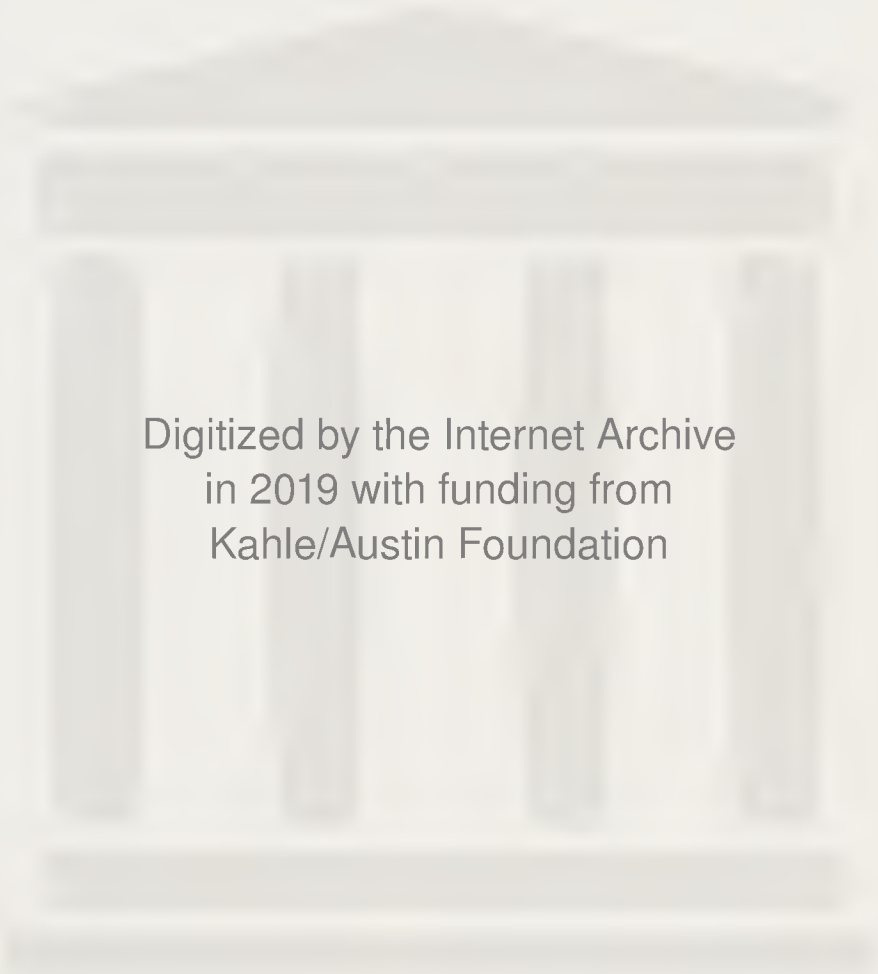

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CANADA

IN THE

GREAT WORLD WAR

PATRICIA EDITION

This edition is limited to One Thousand Numbered Sets, being the first printing, of which this is Number 753

A. C. Macdonell

CANADA

IN THE

GREAT WORLD WAR

AN AUTHENTIC ACCOUNT OF THE MILITARY HISTORY OF CANADA FROM THE EARLIEST DAYS TO THE CLOSE OF THE WAR OF THE NATIONS

BY

VARIOUS AUTHORITIES

Vol. V

THE TRIUMPH OF THE ALLIES

TORONTO
UNITED PUBLISHERS OF CANADA
LIMITED

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CHAPTER I

IN WINTER QUARTERS, 1917-18

1. Back in the Lens Area

VIMY RIDGE, Fresnoy, Avion, Hill 70, Passchendaele — such was the record of the Canadian Corps that marched back from the Ypres salient to take over its old familiar positions around Lens in the late fall of 1917. Well might Lieut.-General Sir Arthur Currie call it "a wonderful year." Now the grim fighting was over and the corps was entering upon a long period of comparative quiet. It was time. As the year had been glorious, so it had been costly. Spring, summer, and autumn fighting had added many new graves to those that marked the heroism of the Canada of the New World on Old World battlefields. Indeed, the story of the Dominion was written in crosses over that ancient, war-torn earth. From Ypres, one could go out towards Passchendaele and the writing was new; or one might pass Shrapnel and Hell Fire Corners and so on towards the older battlefields of Zillebeke and Observatory Ridge. Ploegsteert was rich in memories of Canadians, and, as the corps marched out of the blood-soaked area, it passed an old château of high-walled grounds and green and delightful spaces which had been Corps Headquarters during the Battle of Festubert. So the Canadians came out of the salient and took up their old positions in the coal region around Lens, where their valour had won them Vimy Ridge and Hill 70 and where they had made themselves a "home."

Perhaps nothing had made the name of Canada so

dear to France as the history of the Dominion's troops in this famous area. In the early days of the war, Germany tried desperately to cripple the republic by winning the whole of this rich coal land. France gave her dead in thousands to recapture Lorette Ridge, and Britain, with the same end in view, paid a terrible price at Loos. The little Souchez ran literally red with blood. But the ridge was recaptured, and when, in the April of 1917, the Canadians actually drove the Germans off Vimy Ridge and removed the menace to so many of the mines of that area, France thrilled with the victory.

Reinforcements which had joined the corps during the Passchendaele operations found the Souchez clean again, but running through a wilderness. Souchez church was a mass of ruins. Under its shadows were the nameless graves of France. The shrine of Our Lady of Lorette upon the ridge no longer knew the worship of the people of the little villages; for what had been villages were mounds of broken stone and waste. Tradition declared that when the church came first under heavy bombardment, the *poilus,* toiling in their trenches, made another and earthy shrine for Our Lady under their own parapet — and so worshipped until they died in their thousands to win the ridge. The graves of those thousands filled many cemeteries — row upon row of little earthen mounds; upon each mound a cross; over each cross the rosette of the republic; on each cross the words "*Un Inconnu.*" The Unknown Dead of France — buried in many instances by soldiers of Canada when they first entered the area! When Edith Cavell died, the civilized world, knowing the truth, gave her rightful place among the great dead — and Britain raised an army in a night. Near Notre Dame de Lorette — in a little space of green — there is a grave of France under a cross that men from the Dominion erected. The cross bears the simple inscription:

R. I. P.
MME. DELABRE CELME
SHOT BY THE GERMANS
OCTOBER, 1914

Indeed, over all the area from Lorette Ridge on to Arras were French and British and Canadian cemeteries. On one little cross of stone standing alone on a hillside was an inscription telling that it had been erected in memory of one of Canada's soldiers by "his chums of St. Catharines." Further over Vimy Ridge, near the cemetery of the little shattered church of Givenchy, where huge shells had shattered the masonry of many vaults, there was an old wooden cross, standing apart by itself, and having on it only the words "*Ein Engländer.*" Weather-stained and worn, almost concealed by foliage, it marked the grave of some brave English gentleman and provided an unhappily only too occasional reminder that among the German forces there were some who could honour a courageous foe. On Vimy Ridge were the graves of gallant Canadians of the 4th Division who had fallen capturing it. At La Folie Farm a cross commemorated the dead of the 3rd Division. There was a 2nd Division cross near the Arras-Lens road, north of Les Tilleuls. So the 1st Division honoured their dead. Time was to witness the unveiling by Sir Arthur Currie of a memorial of stone, enclosed with German armour-piercing shells, crowned with a great cross, and bearing the inscription:

ERECTED IN MEMORY OF
OFFICERS, NON-COMMISSIONED OFFICERS AND MEN
OF THE CANADIAN CORPS ARTILLERY
WHO FELL DURING THE VIMY OPERATIONS
APRIL, 1917

CANADIAN FIELD ARTILLERY ROYAL FIELD ARTILLERY
CANADIAN GARRISON ARTILLERY ROYAL GARRISON ARTILLERY
SOUTH AFRICAN FIELD ARTILLERY

Into this solemn country of graves and ruins, the Canadians came as men coming home after trying days. It did not matter that from Givenchy Wood one could look upon the ruins of five villages. It did not matter that winter was coming with all its ordeals of cold and exposure. They had made this area their own before they went to Passchendaele and they slipped back into their old positions rejoicing. Starting at Hill 70, the front lines ran south and east towards Lens, claiming the higher levels and half circling the city. They skirted Cité St. Auguste, which was German, while Cité St. Emile and Cité St. Elizabeth were in Canadian hands. The Green Crassier was German; so was Cité St. Antoine; but Avion was in our hands. Further south, No Man's Land widened, and from the eastern slopes of Vimy Ridge the Canadian line ran well forward, with the enemy in possession of Mericourt and Acheville. At Fresnoy, which was in German hands, the lines narrowed again, with the Canadians holding Arleux-en-Gohelle. Our men were practically in the outskirts of Oppy, where the lines were so close together that in one place only a few feet separated the trenches. Further south, Gavrelle, in our hands, practically marked the end of the Canadian front. It was all familiar ground, and all ranks settled down for a " comfortable, quiet winter." The phrase, of course, was purely a comparative one. There was little of comfort or quiet in France at any time.

But the Vimy area was not the Somme or Passchendaele and there were many " luxuries " even in winter. The trenches were good, particularly where captured German " trench mats " had been used as sidewalks. Also old German dug-outs were deep, dry, and commodious, things to delight the heart of Joey Blagstock, for they were " devilish sly " and held many unimagined secrets of rooms and tunnels and entrances. They were well ventilated and boarded.

Canadian Official Photograph

GENERAL CURRIE UNVEILING THE MONUMENT TO THE CANADIAN ARTILLERYMEN WHO FELL AT THE CAPTURE OF VIMY RIDGE

Then the pill-boxes, hell to take, were easily adapted to charitable purposes and did splendid service in housing those who had taken them. Also, there was plenty of coal in the area — waiting to be taken by the official or unofficial working party or conscientious batman. Then there was wood in abundance. Half a score of wrecked villages offered only too tragic a supply. It could not be called " looting " to use shattered doors, broken window sills, splintered beams, and wrecked flooring for the beneficent purpose of warming those who, after all, had won the villages back from the Hun. There were braziers in the front line; stoves in underground chambers. There were shattered houses to give shelter to parties of half-a-dozen men or officers, who used the ancient, damaged fireplaces and rejoiced that fortune had given them a real floor to stand on, a suggestion of wall-paper on the walls, a shelf and a table, and other outward and visible tokens of civilization.

2. The Lighter Side of War

These were some of the reasons that men returned rejoicing to the area. Other reasons were to be found further behind the line, at Brigade, Divisional, and Corps Headquarters, or at the Corps Rest Station, or behind that again, where battalions in rest were playing games and arranging concert parties. The concert parties were such a part of the life of the corps during this long period around Lens that it may be permissible here to anticipate time a little and review some of the performances. Every division had its official company of players. Here and there in brigades and battalions were lads, more or less gifted, who could always be counted upon to amuse the men. The Y.M.C.A. had companies of its own, theatres, and many cinema halls. The Chaplain Service staged many entertainments at Corps and even the area em-

ployment company at Corps had its players. These last called themselves the Rambler Theatrical Company. They gave a memorable performance on Christmas afternoon and brought joy to the hearts of over three hundred men. Their theatre was a ramshackle old building. There were holes in the roof. There was no fire. The audience, sitting on rough, wooden benches, faced a stage that contrasted strikingly with the rest of the interior. It was draped with the flags of the Allies. A spot-light revealed it, a riot of colour in an otherwise gloomy place; and a Y.M.C.A. piano stood in one corner, serving as the orchestra. All were happy; not least the French mothers and fathers and children of the village who had come as the honoured guests of the players. The buck private and the villager spoke different tongues, but the *Entente Cordiale* found as warm expression as it ever did amongst statesmen. A priceless sergeant-major humoured the audience, watched it, fathered it, brought it surging into crashing choruses that had caught the popular fancy, particularly where some song of sentiment hushed the audience and carried men back, as one did, to " the homeland, across the deep blue sea." For it was a striking thing about these men engaged in desperate affairs that they responded most warmly to all gentle things that touched the affections. No noisy or questionable performance ever secured that complete tribute of absolute attention which the others won. As to the business of the show! There was the opening chorus by the members of the troupe. A novelty quartette followed. There was a whistler who surpassed himself and a " lady " who won much applause by his entirely competent employment of muchly " made-up " eyes. There were comic songs, duets, and more choruses. The nigger and clown were there, the conjurer and the dude. All were singers, singing songs written by one of their comrades and set to music by another. The manager, who was also

the conjurer, was a corporal from Winnipeg, not unknown as an entertainer before the war. The bass — a buck private — was an old St. Andrew's College man, a well-known cricketer, who played for Canada against the Australians when they toured the Dominion and visited Calgary some years ago. The baritone and whistler was a famous boxer, sparring partner to Freddie Welsh for two years, to Matt Wells for six months, at one time champion nine-stone-three wrestler of Britain, holder of a Lonsdale belt for boxing, and hero of eighty-one battles in the ring with only three adverse decisions. Of such was the troupe made, surely a strange and interesting group of men, even where war makes for such associations.

Such was the concert in its modest form. Visitors to the Canadian Corps on the night of January 21st, 1918, saw quite another sight. It was just dark enough to see the flares breaking over No Man's Land in the distance — marking the fighting line with intermittent flashes of light. Men were pushing and jostling and chaffing one another in a long queue that stretched for many yards down a pathway. The repartee was pointed and entirely of the army. The spirit was friendly and cheerful. Everyone was excited. For the Canadian Y.M.C.A., better known as the " Y Emmas," was not only giving the premier of a true comedy, — the first of its kind in the history of the corps, — but it was the opening of the new Y.M.C.A. theatre. The play was the three act comedy, *The Private Secretary,* and its presentation was as remarkable as the theatre in which it was played or the audience which watched it. From the rear of the stage to the end of the building, where standing room no longer existed, not a foot of space lacked interest. The stage with its curtain might have come from some Canadian city. It was flanked on both sides with boxes, — actual boxes, four of them, — faced with wooden mouldings all done by hand and trimmed with

velvet hangings. Further, it was lighted by electric lights, which were covered with lamp-shades of white silk and pink overlaid with green. Spot-lights from the ceiling revealed a beaver and maple leaf over a stage made bright by footlights. An orchestra from a battalion band played popular airs. In the boxes, the Corps Commander and his aides, famous French generals who had known the area well in the days of the bitter Souchez fighting, a Belgian general of the Belgian Mission, and generals of the corps, of " A " and " Q "[1] and other services, waited for the play to begin. The rest of the theatre was packed with over five hundred officers and men from the line, from support and reserve, from battalions and batteries — engineers, signallers, pioneers, machine gunners, officers and men from supply columns and field ambulances, from field companies and corps tramways — these and others filled the building to capacity: generals and colonels, majors and subalterns, sergeants and men — all in orderly rows on actual chairs.

The engineers of the corps had carted this theatre in pieces from a place miles away. Then they rebuilt it. A foreman carpenter with five others spent six weeks working on the stage, the boxes, and the fittings. Universal praise for their work was their reward. The curtain came from Paris. Indeed, it was wonderful where these concert companies got their men and material.

On this same night in another theatre at Corps — this one old and reminiscent of the earlier fighting period, when such splendours as the Y.M.C.A. building were unthought of — an Imperial concert party was playing *Cinderella,* with a first violin who was formerly the first violin at the famous Piccadilly in London. It was further reported that the wonderful " creation " which Cinderella wore at the Prince's

[1] See Vol. IV, p. 219.

ball was originally made for the Czarina of Russia. It may easily have been so.

Divisions spared little money and no pains to make their companies the best on the western front. Some of them even played in London, as, for instance, the famous concert party of the 3rd Canadian Division. The "Maple Leaves" Concert Party of the 4th Division played the first pantomime ever played on the western front and earned a tremendous reputation. Their object — as with all other companies — was to give to the fighting men out of the trenches some touch of lighter things, some memorable entertainment, that would send them back to their tragic work at least refreshed in mind and rested in body.

It was on New Year's Eve that the "Printers' Devils" presented their pantomime *Aladin France.* A lad in France was the star of the performance. Other lads were with him. The play they produced was a marvel. The theatre — in reality a lecture room, specially adapted for the purpose — held a thousand. The stage was over twenty feet wide, and had a brilliant display of electric footlights. The scenes were of an Emperor's palace, a village in England, a demon's cave. The music was partly from *Chu Chin Chow,* partly from the *Maid of the Mountains,* partly from *Cloches de Corneville,* partly from the *Palace Revue* "Airs and Graces," and partly composed by the players themselves. There were other airs, too, from New York. The orchestra was supplied by a Manitoba regiment. To crown all, elaborate programmes were issued.

One man devoted three days of his leave in London selecting the costumes and accessories. The bandmaster worked past midnight for many nights. The scene painters were busy for weeks. The "lovelies" — the Emperor's adopted daughter and the Fairy Princess — spent weeks over their clothes and hours over their make-up. They had to be as perfect as art

could make them, and the Princess in this particular company had a reputation to maintain. He had made his début during the bitter days of Passchendaele, when the company — playing behind the line to men who had just come back from the hell in front — was without its lady. At an hour's notice, he had taken the desired part and carried it through without a slip. Indeed, the division was greatly attached to this "lovely." Just before Christmas a rumour had gone through the ranks that he had been killed. The various staffs at headquarters were burdened with inquiries. Moody men interrogated even Major-General Sir David Watson himself. Gloom reigned until the rumour was denied. So the Fairy Princess worked to prove that he was worthy of the division's high regard. And the adapters of lyrics and dialogues worked to the same end. The electrician had many troubles. A whole wing fell on the night of the dress rehearsal, and while the carpenters were repairing the damage he had twelve more footlights to find. Finally, Abanazar, the Wicked Uncle, had troubles of his own, and the Widow Twankey had a multitude of them. It was no ordinary play, nor were they ordinary players. Private Petch, the Emperor, was well known in amateur theatricals in Victoria before the war. Skeen, a Scotch-American, had been a stage director in the United States before he enlisted. Sergeant Evans, the Wicked Uncle, had played in his time with George Edwardes in musical comedy in London and was known in Canada and over the border. Birch had been more or less of a professional. Winnipeg knows the name. Heyes had been in the business all his life and had been connected with the "Lancashire Lads" for some years. Livett had been with the famous old comedian Harry Pleon in vaudeville in England. Stafford, the manager, — who received his commission as a lieutenant just before the opening performance, — had been with George Edwardes in

The Country Girl as a musical director. He had then gone into vaudeville with Alice Raymond in *A Night in Egypt,* toured the States, and finally settled in Winnipeg.

But it is New Year's Eve. The troubles of the concert party are over at last and the test of their efforts is at hand. The band, having just celebrated at a Highland dinner, is at its best. Hundreds of men and officers have filled every available inch in the building. The orchestra of fourteen pieces is tuning up. Carved in wood above their heads at the top of the stage is the Maple Leaf, the badge of the division. A stage hand slips from behind the scenes and removes a sign "No Smoking." Applause from the audience! Then silence as the orchestra begins and the voices of men are heard in the distance, singing, the old, old song, "Come, all ye Faithful." The theatre is strangely silent. The curtain goes up. It is the prologue—a dug-out in France. In it, a sleeper, rousing himself, begins the story. Again the curtain. Now it is pantomime land. The Emperor's palace is in the distance with the royal baths to the right of the stage and houses to the left. Abanazar, the villain, is there in robe of black and gold, with a white and red blotched dragon of the Empire on his skirt. It is the Emperor's birthday. Squint-eyed Celestials are promised a banquet by the wily one. And here comes the army touch, for Abanazar, digging deep into a henchman's bag, brings forth the following with song:

Here be fine Fray Bentos Bully
And McConachie's Stew so grand.
Here be Batger's Plum and Apple
And Pork and Beans of Simcoe Brand.

Here be Huntley Palmer's famous hardtack
That breaks your teeth to bits;
And that lovely Maypole cart grease
Used for frying eggs and frits.

Here we've Ruby Red Havanas—
Smokes well known as Wills's best—

And the famous brown jar lotion
Which someone swiped from a Q.M.S.

Only a villain could sing such a song with success. That is perhaps Abanazar's greatest triumph. He does. The men cheer him to the echo. The Emperor enters, accompanied by the Princess. The unfolding of the plot reveals the fact that the Princess is an adopted child, that a marvellous lamp was stolen years ago from the Palace, and that the finder of the lamp shall marry the "lovely" Princess. Enter the American. Everyone sings "Yankee Doodle." Abanazar, Aladdin, and the American vie with one another in making eyes at the Princess — not forgetting her maid. The Emperor — once in France in the Great War — decides to visit the Widow Twankey, formerly his cook, in England. Great enthusiasm. Chorus and stars shake the building with "Take me back to dear old Blighty." Audience highly enthusiastic. Curtain.

The next scene is England indeed. The painter has excelled himself. The inn, the lane, the sky — these are as well done as the three yokels drinking their ale while the Widow Twankey — in a voice that never was before on sea or land — sings to them of her husband, "for no one would think I was only his wife, he treated me more like a friend." Having sung, she takes the audience into her confidence. "Don't you think I am married?" she asks. "Don't I look as if I had had an accident?" The point is well taken — almost as well as the song which preceded it. But it is when she is talking of her elder son that she really catches the "birds" just out from the trenches. Son was in France — a "bird" himself. He won the Military Medal. "But he wouldn't tell me why," his mother complains. "Said he didn't know. It was a military secret. But if he had called heads instead of tails, the sergeant would have got it."

The next act is remarkable for a rosebud scene that would have done justice to Daly's, the Palace, or the Hippodrome, and also for a quartette, — the Bones Quartette, — " Come Seven — Come Eleven."

And so to the end, with the house ringing with cheers for the performers. Then, it being New Year's Eve, a thousand officers and men join hands in Auld Lang Syne. Outside the guns are muttering in action.

With the concert parties to lighten the long evenings of the winter months, there were also any number of canteens for the men and clubs for the officers. At Château de la Haie, for instance, which was the headquarters of numerous divisions during the last extensive period before Lens, there were both an officers' club and a men's canteen in the same building. The club was open from 10.30 a.m. to 10 p.m. Lunch and tea were served daily, and refreshments could be secured from noon until 9.30 p.m. There was a large lounge-room, with a splendid fireplace, easy chairs, small tables, magazines, illustrated weeklies, and dailies. The dining-room catered to between eighty and ninety a day, and excellent luncheons were served at four francs a head. The men's canteen was almost a general store, selling, among other commodities, candles, matches, biscuits, cigarettes, tobacco, stationery, chocolate, and tinned milk. The charges were low and the stock good. Men were able to secure many of the little extras that helped so much to make life livable, and the popularity and usefulness of the canteen were proved by the fact that its staff of two men were kept busy from nine in the morning until eight at night, catering sometimes to as many as six thousand men in the area. Receipts from the club and canteen amounted to fully three thousand francs on some days, the money saved out of running expenses being used in a variety of ways for the benefit of the men.

Such canteens as this were good, but the Y.M.C.A. stalls were a blessing almost beyond appreciation.

On any night in the forward fighting area ration parties going up to the firing trenches and working parties coming out could be found cursing the blackness, and the wet, and the cold. To the east, flares marked the German line: to the west, unseen in the darkness, were the heights that Canada had won in so much hard fighting. And those who tramped forward or back, be they from batteries or battalions, pioneers or engineers, wore their steel helmets, and their gas masks were at the alert. It was dreary, cheerless work until, in a jog in some communication trench or by some ruined house in a wrecked village, the dimmest of dim lights would make them welcome and they would hasten forward where a subdued chorus of voices told them of hot tea and coffee. It would be one of the advanced posts of the "Y," with its free hot drinks and its biscuits, cigarettes, gum, chocolate, and other things to ease the mind and please the belly at prices far below those of *estaminets* or other civilian establishments. For the "Y" did for the men in the line what the officers' club did for the captain and the subaltern, and did it well. It gave rest and food and recreation, with payment only for the food. Without these things there would have been little to relieve the stern ordeal of war. So zealous was the association in the performance of its work that at one time it had an advanced coffee stall in the ruins of Lens within one hundred and fifty yards of our furthest outpost line. There were always such stalls in the support area. Indeed, they were sprinkled all over the corps, from the forward zone to the rear, — at Brigade and Divisional Headquarters, at training camps and traffic junctions, — everywhere where the concentration and movement of men were pronounced.

And the canteen was only part of the work of the association. It fostered sports and supplied the materials. It organized and presented both concert parties and cinema shows. It conducted educational

classes until it gave its support to the University of Vimy Ridge and undertook to furnish the huts, books, and other material required for classes. It had libraries on loan, and gramophones and gramophone records. It catered for company celebrations and battalion dinners. Indeed, its activities were manifold. To spend twelve hours with the senior officers of the association was a revelation. At Corps there was a central establishment with rooms for educational classes, a canteen, a reading and writing room, and other special departments. Here also, in addition to the theatre, which in one week in seven performances played to no fewer than 4,640 men, with every seat free, was the centre of " Y's " athletic system for the corps. It had gradually devised a system so thorough that it ensured the representation of every unit in championship meets. It had an athletic officer with each division, co-operating with the divisional authorities, and it supplied great quantities of athletic materials free to the troops, the only stipulation being that such supplies were nominally on loan, to be accounted for at the end of the season and to be returned to the common corps, division, brigade, or battalion pool when not in use by particular formations. The demand for supplies was tremendous. Amongst the indents presented to the association, for instance, was a single day's order from one brigade for 6 baseball sets, 4 basketball sets, 10 badminton sets, 46 footballs, 33 indoor baseballs, 127 pairs of boxing gloves and shoes, 9 cricket sets, 1 medicine ball, 15 tennis sets, 2 tug-of-war ropes, 4 lacrosse sets, 154 sneakers, 141 knickers, 114 jerseys, 98 pairs of stockings, and 3 volley ball sets. So much for the athletic activities.

A visit to one of the divisional training schools would reveal two large sheds marked with the red triangle. The first would contain the canteen, reading-room, library, writing, and lounge rooms. It formed

part of the educational system and such large signs as the following were prominent:

SPEND AN HOUR IN THE LIBRARY.
RATIONS FOR THE MIND.
FICTION.
SCIENCE.
CIVICS.
AGRICULTURE.
BUSINESS.

DON'T STARVE MENTALLY.
TAKE IN THE TALKS GIVEN IN THE
CANTEEN LECTURE ROOMS.
AGRICULTURE.
THE HISTORY OF THE WAR.
CURRENT EVENTS.
POLITICAL PROBLEMS.
LITERARY READINGS.
SOMETHING EVERY NIGHT BETWEEN
7.30 AND 8.30.

Special lectures were given on various questions. One series dealing with the war read as follows:

A GENERAL SKETCH OF THE WAR

1. TWO BOCHE DREAMS.
2. BULLY BAULKED — SERAJEVO TO THE AISNE.
3. RACE TO THE SEA — SLAMMING THE DOOR.
4. BLACK 1915 — FIGHTING FOR TIME.
5. VERDUN.
6. TURNING OF THE TIDE.
7. TURKEY ON FOUR FRONTS.
8. STIRRING 1917.
9. UNCLE SAM AND THE WAR.
10. RUSSIA "BEAUCOUP ZIG-ZAG."
11. WAR AIMS AND THE FUTURE.

On an average from two hundred to two hundred and fifty men a night attended these lectures, a proof not only of the keen interest of the men in war develop-

ment, but of the high educational standard of the Canadian private.

The Y.M.C.A. headquarters at Hesdin consisted of a series of office and supply buildings and was the centre of the system that kept canteens and concerts, cinema shows, athletics, and other recreational activities alive in the corps. There were motor repair shops for the moving-picture machines and the small lighting plants, etc. During the bitter fighting at Passchendaele one of these miniature lighting plants helped to illuminate a main dressing station. There was a carpenter's shop, a post-office, an equipment office, and a piano repair and sign-printing shop. All manner of games, athletic supplies, flags, and gramophones took up much space in another large storehouse. An extensive room was devoted entirely to books, magazines, and periodicals. A franc deposit was required to protect the association against loss when a book was taken away, but the money was returned when the volume was brought back. The average weekly demand for new books throughout the winter was eight hundred and the Y.M.C.A. bought them in quantities of ten thousand. It had selected books, constituting circulating libraries which it gave free to branches of the organization for use in the men's reading-rooms, and the selections ranged all the way from the Bible and religious subjects to Oppenheim and Le Queux. The gramophone service was handled in much the same way, there being an exchange library system, whereby battalions, batteries, or other units could secure fresh records for old; and there was a repair plant for the machines. The association brought from one thousand to two thousand records monthly. There were other offices and buildings at this headquarters, but the greatest of all was the food supply depot which made the canteens possible. There cocoa was kept by the barrel, matches by the case, orangeade in five-gallon casks. In one year the corps was furnished through the depot with fifty

tons of maple sugar. Buying was done at rock-bottom prices, markets were closely studied, and the association received valuable assistance from the Canadian Manufacturers' Association in its purchases. The prices of all commodities that were sold to the men were those officially adopted for the British canteens.

Finally, the Y.M.C.A. had a concert school where it trained men from batteries and battalions and fitted them to entertain their units. At one time, they had fifteen concert parties " on the road," the " Y " providing the scenery, scenario, music, and costumes — and the theatres. It had as many as twenty-five cinemas and theatres within the corps area around Vimy. Some of their " plants," as they called their theatres and canteens, were of considerable size. One, for instance, in the forward area, consisted of two specially designed huts, each one hundred and four feet long and twenty feet wide. One served as the concert and cinema house. Any day, groups of men, muddy from the trenches and with their steel helmets and gas masks beside them, could be found singing popular songs or giving some impromptu concert from a real stage with footlights. There was seating capacity for nearly six hundred men. In the other building, there were three rooms, one a canteen, the second a lounge and writing-room, and the third a library and reading-room.

There was frequent criticism of the Y.M.C.A., but little of it was justified. The association did splendid work, work which was officially appreciated by the Corps Commander in the spring of 1918, when, addressing the officers of the association, he said: —

" I did not expect to be invited to speak, but to see you at your work. But now that I have this opportunity, I wish to bring you the sincere thanks of all in the Canadian Corps for your work.

" There are two features in winning a fight. One of these is the *moral* of the troops. It is in this you

have done so much. Canadians have the reputation of being good soldiers. That is because their *moral* is high. I realize that the *moral* of the Canadians is only possible because they are well looked after, and this is where the Y.M.C.A. comes in. The men forget the sights of war and seem to get a fresh start through your programmes, your sports, and your canteens. Your canteens provide things for the men that they cannot get elsewhere, and you supply them at such reasonable rates.

"You are a wonderful help to us in beating the Boche. It is apparent to all in the corps and it is not necessary for me to say this. But this year we are going to need your help more than ever. Heretofore the Canadians have always been pushing forward and winning, and that is a great stimulus to the men. This year it will be different. It will be harder to keep up the spirits of the men. Even some of the keenest are beginning to get a little tired; and then we may be on the defensive this year. This will make it more difficult to keep up the *moral*. If we let the *moral* sag, our efficiency will topple over. I believe the authorities should recognize the extremely valuable factor the Y.M.C.A. is in winning battles, and I think you ought to have the proper personnel and equipment necessary to carry on your work. If there be anything I can do to impress your needs upon the authorities, I shall be glad to do it.

"I can only repeat what I said a few moments ago, that the need for your work is greater than ever. We are going to need the influence of the Y.M.C.A. more than ever, and if such a thing is possible, you all must work harder than ever, though I do not see how, with the men and material you have, you can do more than you are doing. But if you can, do so. We need it."

How great that need was going to be, only General Currie and those in high command knew then. But

the Y.M.C.A. did its best, and Canada at home gave it powerful financial support. The association devoted much the greater part of its efforts to the men. It had some clubs for the officers, however, and men with commissions were well served, particularly at Corps, where early in the New Year a magnificently equipped officers' club was opened by the Corps Commander. It took the Y.M.C.A., the Chaplain Service, the Engineers, and "Q" to make such a building possible within the battle area. It boasted a lounge-room, dining-room, bedrooms, barber shop, bath, white tablecloths, linen sheets, electric lights, brass candelabra, rugs, bed mats, wash-basins, wash-stands, books, papers, periodicals, cigars, cigarettes, and refreshments.

The lounge and dining-room occupied one building, with additional space for a cloak-room, office, kitchen, scullery, and pantry. The exterior of the building was tarred and brightened with sprightly green paint on window frames and porch. The cloak-room was on the right and the office on the left of the entry. Folding doors opened into the living-room. The interior was spacious, with a large, brick fireplace and blazing logs to supplement the heat that was given out by two Klondike stoves in other parts of the room. There was a piano, and many tables, from long central ones for books and periodicals to square tea-tables running along the sides of the room. Each table had a spotless white cloth and brass candelabra with red Japanese shades to give a joyous touch of colour. There were some comfortable lounge chairs and many fancy, wooden ones with cane bottoms. There were numerous rugs on the linoleum-covered floor. Red blinds covered the windows, and on the mantelpiece over the fireplace were bits of bric-à-brac and a real clock that ticked out signal time. Then there was a piano and a bookcase, and ceiling electric-light chandeliers of brass, with triple globes and cut-glass shades. From

the lounge-room, double swinging doors gave entrance to the dining-room. Here, again, the floor was covered with linoleum and rugs. Many pictures decorated the walls. A great stove, after the style of the " Klondike," provided plenty of warmth. In one corner was a refreshment bar of the most approved pattern. In another was a " pukha " sideboard, upon the third shelf whereof appeared to the military eye such lay things as actual crumb trays. There were six tables in the room, with four covers apiece; but upon occasion, it could easily accommodate thirty diners.

The bedrooms, bathroom, etc., were in another building, which contained fourteen cubicles, each one roughly twelve feet by eight feet, with large windows which gave plenty of light. Each room boasted coat hangers, mirrors, and towel-racks, washstand and basin, jug, soap dish, and candle. The beds were glorified with sheets and also pillow-slips. The end of the building was devoted to the bathroom and barber shop. Heat was supplied by Klondike stoves.

The Corps Commander, in formally opening the club, emphasized the desire of the corps that it should be used by all visiting officers. It provided a welcome link between the battle front and civilization. It was to be the home of the officer called to Corps Headquarters on special duties, going or coming from leave, or down from the firing line for tea and dinner and a theatre. The club was placed in charge of the Chaplain Service and was a success from the outset. It became a centre of Corps' social activities and when the Canadians moved to another area there was universal regret at leaving an institution which had done so much to ease the anxieties of war.

There were other and important features of the lighter side of the war. For instance, the bath houses, scenes of riotous tumult where many men under hot showers rejoiced in a real " clean-up." Old clothes were cast aside to be " debugged " and men emerged

from the showers rid of the corruption of the trenches and with clean things all ready to be donned in place of the old. One bath house had a capacity of two hundred men an hour, and every possible precaution was taken to ensure the cleanliness of the water. It was twice filtered, once through a coke bed and then through fine sand. Montreal, Toronto, and Ottawa might know something about filtration, but so did the Army. No one who has not been forced to go dirty in dirty trenches for many days can appreciate what a boon those baths were for the men; and only wounded who have had their wounds attended to in gloomy places and doctors who have worked by uncertain, flickering lights can know what the installation by the Canadian Red Cross Society of portable electric-light plants in advanced dressing stations meant for the C.A.M.C. and its patients. These plants had long been a dream of the advanced agent of the Red Cross in the battle area. The first plant was installed at La Coulotte. Its success was immediate and its service invaluable.

3. The Corps Tramway System

No appreciation of the many factors which made life easier for the men in the line could be anything like complete without some description of the corps tramway system. All through the winter and spring it gave splendid service. Indeed, it was a marvellous network of lines and junctions and sidings, and it would be hard to overestimate its value. Before the battles that wrested Vimy Ridge from the enemy, the tramways ran forward beyond the support lines and so running fed batteries with shells, evacuated the wounded, brought reliefs up with their equipment, munitions and stores, hauled up heavy and light guns, trench mortars, camouflage, machine guns, ammunition, bricks, coal, water — in short, relieved the shell-

torn roads of the burden of continuous lines of great lorries and mule-drawn ammunition trains and horse vehicles of all descriptions. Up to the support lines and beyond, the light tramways fed the army with essentials, doing the work of hundreds of men and hundreds of animals. And the service to the army was perhaps greatest for the wounded. For the railway lines ran to the doors of advanced dressing stations. Specially constructed Red Cross trucks stood waiting for their human burdens. Battle areas were cleared with extraordinary rapidity. After the first Vimy advance, complete evacuation was reported as early as 3.30 in the afternoon.

During the first week of preparation for the Vimy advance, the diary of the tramway company shows that on one section alone 793 trucks covered 2260 miles and hauled 4154 tons. Five petrol tractors and four hundred mules were used, four and five mules to a train. It was a period of continuous construction, mules being employed over the new rail sections. Time and again the line was torn by shells and repaired. On the night of April 9th, the first attack, visitors at the end of the railhead saw piles of construction material. The tramways were preparing to advance with the infantry. Advance they did, laying their new track rail by rail as the troops went forward. In sixteen days, 4600 metres of new track were laid in one section, and during the battle operations this section alone supplied eighty per cent. of the field ammunition for one division — delivered to the batteries at the rate of 1200 rounds a day. The same section supplied ninety-five per cent. of the trench-mortar bombs and grenades for the same division. The tramways altogether hauled 234 trucks of water in the month, 1463 of ammunition, 212 of rations, 829 of steel, 73 of ballast, 67 of salvage, and 77 trucks of other material, making a total tonnage of 11,308 for the thirty days. During the fighting special trains of two nine-ton trucks, holding

thirteen stretcher cases, evacuated wounded from advanced dressing stations. In four days 1250 stretcher and 510 sitting cases were handled, fifty special trains being employed. Every day of the whole month the tramway company suffered casualties. But the work never ceased. The spirit of all was the spirit of one of their number, a private. He put out a fire in a truck of ammunition " by drawing up to a shell hole and throwing water on the truck by means of his steel shrapnel helmet," as the heroic incident is recorded in the bald words of the war diary.

There was no such splendid assistance from the tramways at Passchendaele. No such system of tramway lines existed; but the Canadians in the period they were there constructed two and a half miles of railway over the hideous country. There was also no such demand on the Vimy system in the winter of 1917-18 as there had been in the previous spring, but the tramways continued to give invaluable service, relieving transport, assisting reliefs, and carrying out manifold operations that saved money, animals, and men. A trip on one of the lines on any night was a memorable experience, with the petrol-electric engine pulling its flat cars loaded with " birds " toward the front line — men who sang as they went forward to the firing trenches to relieve others who had done their turn. Running along in the shadows of strangely unfamiliar things, the baby engine approached closer and closer to the enemy's lines. The singing of the men would be stopped. Cigarettes would be put out. Voices would be heard offering heart-felt prayers that no " Bairnsfather " moon might appear to lighten the gloom and perhaps reveal the presence of the relieving troops to the Boche, thus exposing the location of the line and inviting a bombardment that might create disturbance and bring confusion to the intricate little railway system. Finally the engine would stop. The men would alight. The curt, muffled voices of officers

would be heard breaking the silence, and the little or big detachment, fresh for the night's work instead of tired out by long marching, would go forward up some communicating trench to complete the " relief." And going forward they would bless the tramways that had saved them many a weary mile on foot with full kits.

In reading of the tramways, care should be taken not to confuse them with the light railways. In the corps area, the light railways, built by French, Imperial, or Canadian Railway Construction Battalions, ran from the standard gauge railhead to the battle area. There the tramways began. They were the same railways in that the narrow gauge was the same and the trucks were the same. But the engines were no longer steam. Telephone control replaced semaphore control, and the men who built the tramway lines were chosen from the infantry — shell-tried, war-hardened veterans. They were old railway men, most of them, who talked of the C.N.R., the G.T.R., and the C.P.R. as a man talks of his friends. They worked under shell, and often machine-gun, fire and called it " blighty." They watched their tracks blown up and repaired them " under the guns." They told stories of engineers — their hearing dulled by the noise in their cabins — who were deaf to the warning whistles of shells which signalled passengers to jump and who continued at their posts until they were blown up with their engines. The story of the tramways is a story of great service paid for in casualties, and it is a romantic story of dogged determination and proved success against great difficulties.

It was in the Ypres salient in 1916 that the engineers first decided to build tramways. A separate organization was found necessary. Divisions were asked to supply eighty men apiece, battalion men with railway knowledge. Eighty rifles was a lot in those days; but the men were provided and the Composite

Pioneer Company was formed. Organized, but unauthorized, the little unit was nobody's child, and had to struggle hard for existence. The General Staff permitted it to live, and that was about all. The days that followed were as dramatic as they were difficult for the small body. The Canadians had been spending about $25,000 a day on roads, using some one hundred lorries and employing 2,500 men. Twelve hundred tons of stone were being used daily in road construction that was never really finished, for repairs started before construction was completed. Light tramways meant saving men, money, and material. But there was no rolling-stock. The unit was not recognized officially. Officially, the men could not be paid, promoted, fed, or equipped. They could not even draw "dixies" to cook in. Under such handicaps, the work started. The first rolling-stock was two Boche engines dug out of Dickebusch lake. The men made their own trucks out of all kinds of material. Even the track spikes had to be forged. Wooden brakes were made and cars coupled with any kind of coupling that would serve. The first line was in operation by June, 1916, — six miles of it, running east from Poperinghe. It was the first light railway line built in the British army area, where experiments were then going on with push lines and monorails. Engines ran off the pioneer track; couplings broke; shells tore up the roadbed, — but the work went on and triumphed. There were more triumphs on the Somme. At Hill 70, the Composite Pioneer Company entered an area where there was practically no light railway. Push lines were changed into traction lines, but the work was largely one of new construction. Within two weeks the company had a system of fifteen miles of tramway in operation, handling over two thousand tons of supplies and materials a day. In the Vimy area before the attack there were over thirty-one miles of tramway. At one time the corps had five

Canadian Official Photograph

A CANADIAN LIGHT RAILWAY CARRYING WOUNDED

times as extensive a system as any Imperial unit in France. But it was not until November 10th, 1917, that the Pioneer Company finally won recognition. Authority was then obtained for the formation of two units, a tramway operating company and a tramway construction company — all personnel to be Canadian engineers. The child had been accepted. Armies praised it. It was beloved of the corps.

4. The University of Vimy Ridge

With so many varied duties to relieve the terrible routine of the war, the Canadian Corps, in the winter of 1917-18, also established the University of Vimy Ridge, an educational institution unique, not only in Canadian history, but in the battle history of the world. The establishment of the university was officially sanctioned by the Corps Commander in December and the 3rd Canadian Division was selected to test the educational scheme, with the understanding that if the experiment proved successful, the activities of the university would be extended to other divisions and embrace all ranks and all services.

The character and purpose of this pioneer war university were set out at length in a calendar of ten typewritten pages issued from the office of the Assistant Director of Chaplain Services early in December. It was pointed out that for many the war had meant an interruption of their studies and of preparation for their life-work, while for others the experiences and vicissitudes of the great struggle involved, on their return to civilian life, a change of occupation from that to which they were accustomed before enlistment. "For all alike, however, the need of more effective training in all departments of industrial activities has been emphasized." These considerations, together with the opportunity for instruction afforded by the long winter evenings when men were in rest or

reserve, led to the establishment of the university, "not only to relieve the men from the monotony of the daily routine, but, as well, in some measure, to equip men for greater efficiency in business, the professions, agriculture, and the other great industries of the Dominion."

A threefold mode of operation was proposed:—

"1. Lectures to large groups of men, delivered at convenient centres, dealing with civic and imperial topics, or relating to the present struggle, or looking forward to the duties and opportunities of the future.

"2. Classes for smaller groups taught by experienced teachers in each unit throughout the division.

"3. In the case of more advanced students, private reading will be prescribed and records will be kept in order to secure for the student on his return to Canada some recognition and credit for the work accomplished."

Another aim of the university was to have prepared "for the period of demobilization at the conclusion of hostilities an organization and staff that could immediately devote its attention to the vocational and technical education of soldiers during the interval that must elapse between the conclusion of peace and their return to Canada."

The university had a regular academic constitution, with the G.O.C. 3rd Division as chancellor; a president; a registrar; a senate representing each branch of the Service and including the heads of the university departments; a faculty selected from professors and lecturers from the universities of Canada on active service in France; and subsidiary schools operating throughout the division.

Under the constitution, the senate was composed of the chancellor, the president, registrar, senior chaplain, Y.M.C.A. supervisor, representatives of the brigades in the division, of the artillery, engineers, pio-

neer battalions, Army Medical Service and Veterinary Section, and the members of the faculty.

Captain R. H. Oliver, M.A., of the Chaplain Services, was president of the university and also chairman of the executive. Other members of the faculty were Lieutenant Edward Duval, Captain G. S. Easton, B.A., Lieutenant J. S. Eaton, M.A., and Lieutenant Thomas, B.A. On the University School Staff, amongst others, were Sergeant S. A. Watson, Private J. F. Higham, Private E. E. Barnes, and Bombardier H. E. Ames, B.A. All of these men were scholars of more or less distinction and for the most part had had experience as teachers.

The university course consisted of lectures and classes, the syllabus of lectures being as follows:—

I. Civil and Imperial:
(a) The Development of Civilization; (b) The Bases of True Citizenship; (c) Imperial Geography; (d) The Romance of Greater Britain; (e) The Making of Canada.

II. Interpretative:
(a) The History of the Warring Nations; (b) The Issues at Stake; (c) Phases of the Struggle; (d) Freedom of the Seas; (e) Constitutional Readjustments; (f) The Triumphs and Dangers of Democracy; (g) The Contribution of Science and Invention.

III. Reconstructive:
(a) The New Order; (b) The Demand for New Methods; (c) The Lessons of the War; (d) The Social and Political Significance of Scraps of Paper; (e) A League of Nations; (f) The Economic Resources of the Empire; (g) Canada, the Land of Opportunity; (h) Canada, To-day and To-morrow; (i) Intensified Farming; (j) The Agriculture of France; (k) Reorganization of Industry and Commerce; (l) Success

in Business; (m) Technical and Vocational Training; (n) Conservation of National Resources; (o) Sanitation and Public Health; (p) The Future of Aviation and Transportation; (q) Public Opinion.

University courses were given in Agriculture, Business Economics, Education, Engineering, English, French, History and Geography, Latin, Mathematics, Philosophy, Religious Literature, Science, Forestry, Mining and Fisheries.

The classes included:—

1. Agriculture:
   (a) Field Husbandry; (b) Animal Husbandry; (c) Marketing; (d) Poultry, Bees, etc.
2. Business:
   (a) Commercial Arithmetic; (b) Business English; (c) Shorthand; (d) Bookkeeping; (e) Banking.
3. Literature and Language:
   (a) English Composition; (b) English Literature; (c) French.
4. History and Economics.
5. Applied Science:
   (a) Physics and Chemistry; (b) Engineering (Civil, Electrical, Mechanical); (c) Mechanical Appliances of the War.
6. Religions and Philosophical.
7. Vocational.
8. Elementary Instruction.

University or other advanced students were allowed to register with the university for special lines of private reading. Where evidence of satisfactory work was given, the student was to be recommended to the educational institutions of Canada for recognition and credit. It was hoped to make arrangements with

Canadian Trades Unions whereby men taking artisan and vocational training courses would be given credit for their apprenticeship when so recommended by skilled instructors.

CHAPTER II

WAR, POLITICS, AND CHRISTMAS CHEER AT THE FRONT

IT was characteristic of the Canadian Corps that it had no sooner taken up its position around Lens than it began raiding the enemy's lines and generally making itself obnoxious to the foe. A great deal has been written of the initiative and dash that characterized the troops of the Dominion. The Canadians are officially credited with the first raiding operations in the western theatre of war, and it is certain that they were never quite happy on an absolutely quiet front. They believed it good tactics to " keep the other man worrying " and they seemed impelled by some offensive impulse to commence worrying operations at the earliest possible moment. If they found the enemy sluggish, they administered a tonic of steel and knobkerries; and if they found him active and impudent, they persisted in being more active and more impudent until their enemies had been reduced to a proper frame of mind. It was good tactics. The Canadians, after a few weeks, usually succeeded in dominating the front they held. They did so before Lens. While they were carrying on these customary minor operations, they were electrified by the news of the daring attempt of the Third British Army under General Byng to break the Hindenburg Line and seize Cambrai.

The secret of the advance was so well kept that it was not until the afternoon of the first day of the battle that the Canadian battalions and batteries heard that their old and well-beloved leader was striking hard far to the south of them. When the news

of the brilliant initial successes was received, the warmest congratulations were sent from the corps, and throughout the battle the hearts of "Byng's boys" were with him. So, too, were the Canadian cavalry, and the corps later thrilled to the story of the Fort Garrys and their famous charge "into the blue." It was the first time, since the German retreat from Bapaume in the spring, that the Canadian horse had had an opportunity of going into action.

Operating in the right centre opposite the village of Masnières, the cavalry, fifteen miles behind the line, waited at dawn for the signal that would send them forward after the tanks and the infantry. The Strathcona Horse were in support and the Royal Canadian Dragoons in reserve. To the Fort Garrys had fallen the first right of battle. Finally, the anxiously waited signal came, — "Hell for Leather!" — and the volunteer horsemen from the West galloped to the attack. But Masnières was not clear. The bridge over the river in front of the village had collapsed under the weight of a British tank, and the approach was swept by rifle and machine-gun fire. For an hour and a half, while patrols reconnoitred the country, the Fort Garrys waited under fire. Another bridge was found, but they only crossed the river to be confronted by the Canal de l'Escaut. Under concentrated enemy machine-gun fire, troopers working side by side with the splendid British infantry bridged the gap. Dismounted and in single file, the men of the first squadron of the Fort Garrys crossed. But they crossed without their gallant commanding officer, for death came to him during the bitter hours around Masnières. It was 3.30 in the afternoon when they finally penetrated the enemy country through gaps cut in the wire by British troops, who were then south of the town, and galloped on. What follows equals anything in the cavalry history of the Empire. There was only a squadron of them. A peremptory order had come

from Cavalry Headquarters commanding the cavalry to stop at Masnières. This one squadron had "beaten the order." There were enemy to right of them and enemy to the left of them, but forward they raced, cresting the first hill that confronted them and charging down the slope to find themselves facing an enemy battery of field-guns. Charging straight for the battery, officers and men raced to the guns. They came so quickly that the German artillerymen had no time to bring two of their pieces into play. The third was out of action. The gunners blew up the fourth, the pieces hitting our troopers as the squadron swept over the gun positions. And here it should be written that a few brave Germans stood to the salute and were cut down beside their guns. The majority fled.

Thirty had been killed in this hurricane attack, and the little squadron swept on with its ranks thinned and with many wounded horses and men. Engaging and overcoming straggling parties of enemy infantry, the cavalry went on until dusk found them two miles inside enemy territory, commanded only by a lieutenant. A defensive position had to be found immediately, and they fought their way to a sunken road. There they dismounted — what was left of them. Of the squadron strength of one hundred and twenty which left Masnières, over forty men were missing, and only five sound horses remained. Two messengers, sent back to report the situation, had their horses killed under them, but managed eventually to reach the British lines. Darkness was falling. The gallant band was isolated. Stampeding their horses to divert enemy machine-gun fire, what was left of the squadron prepared to return. They had charged forward, sabring as they came; they were to fight back on foot with short Lee-Enfields and the bayonet. The retirement started about five o'clock. It was a succession of hand-to-hand struggles. Four times the little party, growing smaller with each attack, met the enemy de-

tachments and dispersed them with the bayonet. For two hours the spent and weary men slept in enemy shell holes in enemy country, with enemy all around them. Then up and on again! Midnight had passed when the fragment of the squadron reached Masnières again. They fought their way through the hostile infantry in the town to the wrecked bridge and then crossed to safety, wading waist-deep over the big sunken tank that had wrecked the structure. Forty-three men reached the other side unwounded. The squadron had suffered eighty-three casualties and lost one hundred and forty-five horses. But they brought fifteen prisoners back with them; and one of their lieutenants, wounded in the throat, led his section back hundreds of yards to safety and then refused to give up his prisoners until he received a proper receipt for them. At a conservative estimate over one hundred and fifty Germans had been killed. A battery had been put out of action. Three main lines of enemy telephone communications had been cut and invaluable information had been secured of enemy dispositions. It was a thrilling and important episode.

The squadron earned many distinctions, among them the V.C. for Lieutenant Henry Strachan, who had assumed command when the commanding officer fell at Masnières. The official award of this coveted distinction reads: —

"For most conspicuous bravery and leadership during operations. He took command of the squadron of his regiment when the squadron leader, approaching the enemy front line at a gallop, was killed. Lieutenant Strachan led the squadron through the enemy line of machine-gun posts, and then, with the surviving men, led the charge on the enemy battery, killing seven of the gunners with his sword. All the gunners having been killed and the battery silenced, he rallied his men and fought his way back at night through the

enemy's line, bringing all unwounded men safely in, together with fifteen prisoners.

"The operation — which resulted in the silencing of an enemy battery, the killing of the whole battery personnel and many infantry, and the cutting of three main lines of telephone communication two miles in the rear of the enemy's front line——was only rendered possible by the outstanding gallantry and fearless leading of this officer."

The corps rejoiced in the valour of the Fort Garrys and, next to the battle activities in the south, centred its attention upon the coming Federal elections. Polling was to begin in France on December 1st. At first there was little individual interest in the event. There were no parties to make their appeals on these unique war hustings and there were none of the familiar election devices of home to stir enthusiasm. The corps looked quietly to Canada to reinforce its ranks, to carry on the great work of those who had fallen, and to support the living who were now enjoying some rest after their stern struggles in the fields of France and Flanders.

The task of voting those on active service was a tremendous one. Not only the Canadian Corps, but Canadian nurses, V.A.D.'s, attached to the Expeditionary Force, the Canadian cavalry, the Canadians serving in the British and French forces and in the Royal Flying Corps, Canadians in forestry and railway construction battalions, and other detached units sprinkled all over the western theatre from the coast to Switzerland, "every person male and female on active service, whether as an officer, soldier, sailor, dentist, nurse, aviator, mechanician or otherwise engaged," — all these had to be given a proper opportunity to record their ballots. Outside of the Canadian Expeditionary Force on lines of communication in each army area, special polls had to be established and provision had to be made for adequate accommo-

dation for polling booths and for billeting and rationing the deputy presiding officers and polling clerks. Within the corps itself each company and battery commander was responsible for providing such necessary facilities for those under his command and was also required to see that adequate time was afforded all voters for registering their ballots.

Election day was literally ushered in by the guns. The days that preceded it were ones of marked trench activity. On November 27th, the Germans, employing assaulting troops and determined to identify the units opposing them, launched two raids against our lines in the Avion sector. Some Germans got into our trenches in the first attack, but were immediately ejected; the second was broken down by our rifle and machine-gun fire before the raiders reached our lines. At six o'clock on Thursday morning another raid was attempted in force south of Avion. It was completely repulsed, and the enemy retired, leaving ten dead in No Man's Land and one wounded and one unwounded prisoner in our hands. Again on the morning of the 30th, a small hostile party operating against the right of our line was driven out by our patrols, who captured a prisoner. They reported that a strong German party of one hundred was preparing to attack. The raiders were dispersed by the concentrated fire of rifles and machine guns. Earlier in the week the enemy was also treated to a favourite Canadian pastime, no less than twelve hundred drums of gas being projected against his lines. Under such conditions and with our guns harassing the enemy's concentration areas, polling began with the heroes of Passchendaele, Hill 70, Vimy, and other great engagements casting their ballots in the most vital, as it was the most dramatic, election in all Canadian history. For a week previous, special officers had been perfecting the arrangements for voting and ensuring proper balloting facilities for all ranks. Over four hundred

booths were opened on the first day and voting was general throughout all ranks with the exception of troops in the line and in support. Lists of candidates, which had just arrived in time, were posted in all the booths, while notices outside indicated the hours for polling. Special offices had also been opened in Paris for polling the votes of men on leave.

While the army was voting, it was also subscribing with splendid spirit to the Victory War Loan. One instance was recorded of $500 being collected from four privates in five minutes, while in another case two officers and seven men outside of the corps area subscribed $2,000. Incidentally, the corps claimed the youngest bondholder inside or outside of the Dominion, for one optimistic father bought a bond for his son two hours before the child's birth. Intermittent raiding activity continued, with one curious incident recorded. The Germans, signalling one of their offensive parties to make an attack, used the same flare as that which notified our machine gunners to open their barrage. The result was that the advancing enemy marched into a hail of machine-gun bullets, which caused severe losses and effectually disposed of the attack.

By December 7th, over twenty-five per cent. of the ballots in the corps had been polled, with voting reported in favour of the Union Government. Active service conditions made the circulation of ballot papers a complex matter, while persistently moving units added to the difficulties of polling the votes; but not a single complaint had been made to the corps representative of the Assistant Clerk of the Crown in Chancery and the election was running smoothly. Interest in the contest was developing and Canadian events were being closely followed.

On the firing line, clashes between our own and enemy patrols were of frequent occurrence, but the enemy's enthusiasm for raids had been somewhat

dampened. In one outpost skirmish one of our non-commissioned officers with five men had put nine Germans to flight after all but one of our men had been wounded. Earlier in the week a gallant and successful fight had also been recorded of one Canadian against five Germans. The incident is worth recording. It took place early one morning after the enemy had been particularly active with his trench mortars and machine guns on one of our outposts. In order to avoid casualties, the garrison was ordered to move. The men moved and when some distance from the post two of them heard a voice calling in English to them to "throw down your rifles and come up here." A bomb followed the words. One of our men was wounded; the other taken prisoner. The remaining two of the little garrison were then bombed, and four or five of the enemy rushed the miniature position, capturing one of its defenders and stunning the other by a blow over the head. The Germans then retired. But their last prisoner managed during the retirement to get a trench dagger from the boot-top of one of his captors and made such good use of his small weapon that he routed the whole party, wounding two of them. The next night the body of a dead German was found in a shell hole beside our wire with the trench dagger beside it.

Such little events as this merely added zest to the elections. By December 11th, sixty per cent. of the corps had voted and the balance was decidedly in favour of Union Government. The voting zone had been extended so that votes were being polled in the battle area, infantrymen voting in their front-line trenches and gunners beside their guns. With the progress of the election, signs of political activity had also increased within the forward zone. Campaign posters of various kinds were to be found in the ruins of Avion and even in the outskirts of Lens. Interest was now keen, and reports of election preparations

in the cabled news from Canada, together with the comments of the British press on the importance of the issue, were being read with the closest attention. The grave nature of the contest was now realized fully, and not less so because of a revival of activity in the firing line which had culminated in enemy raids in some strength in the Avion sector, where three enemy parties, each some eighteen strong, had endeavoured to penetrate our trenches. The raids had been preceded by a fifteen-minute artillery barrage on our front line and one of equal duration on our support area. We suffered no losses and met the enemy with such a vigorous Lewis-gun and rifle fire that one of the attacking parties never even reached our wire, while the other two were compelled to retire in disorder, leaving three prisoners in our hands. These testified to the increasing nervousness of the enemy at the presence of Canadians on their front, a nervousness founded upon the somewhat harsh experiences of three years of conflict. Indeed, it was nervousness that was responsible for such raids as these. Our patrols really dominated No Man's Land, penetrating the enemy's wire and frequently his trenches, and the Germans were greatly concerned to discover the true strength and disposition of the Canadian forces.

In all this dramatic war-time election no more dramatic incident was recorded than that of voting the men wounded in this intermittent trench activity. Deputy presiding officers, scrutineers, and poll clerks took their ballot boxes with them to advanced dressing stations and voted the men as they lay on their stretchers, men who were so weak from suffering that they found it difficult even to mark their ballots. In one station alone ninety men voted. Election officers also took their boxes with them on tramways behind the lines and voted the railwaymen practically as they worked. They went through the front-line trenches. They worked all day and far into the night and risked

their lives in their anxiety to give every soldier an opportunity to exercise the franchise. One poll clerk was seriously wounded. A presiding officer was sent down to the base as a casualty. One gunner, while voting beside his gun, was hit by shrapnel. Polling booths were damaged by shell-fire. But there was no interruption in the work. By the night of December 13th, with polling scheduled to close on the 17th, eighty-seven per cent. of the total corps vote had been polled. Some units had polled one hundred per cent. of their ballots, while the general experience was that the number of men refusing to exercise the franchise was negligible. The results already constituted a signal demonstration of the practicability of active service elections when adequate attention was given to details of organization and proper facilities were provided for the voters. Altogether, roughly, six hundred polls had been opened in the corps area. Battalion and battery officers had co-operated with the election officers, and the Deputy Clerk of the Crown in Chancery and his fourteen assistants reported all arrangements working smoothly and with a pleasing and surprising lack of complaints. With four days of balloting still to come, the corps was following the contest with the liveliest interest and waiting for the result of the elections at home as it would have waited for the outcome of a battle. What that result was is history. It was a foregone conclusion that the vote of the men on service would be overwhelmingly in favour of the Unionist administration.

In the midst of all this, preparations were going on apace for Christmas. Already many of the Christmas parcels from home had arrived and the Red Cross had received quantities of special supplies of streamers, Chinese lanterns, crackers, masks, and other specialties of the season and were distributing them to units throughout the area. For these things thanks were due not only to the Canadian Red Cross Society and

mothers and fathers, brothers and sisters, wives and friends at home, but to the efficient organization and unending activity of the Canadian Corps Postal Service. The Home mail came by boat and train and lorry and wagon and man to the firing line. Handled within the corps area by ex-Canadian Post Office employees, it was pouring in now, bringing Christmas messages and letters to those on active service. Roughly, one hundred thousand letters a day and fifty thousand parcels were being delivered, though not all of them from the Dominion. A great deal of mail was coming from England, both from families and relatives there and from countless friends that the men of the Canadian divisions had made in Great Britain since the landing of the 1st Division. The normal corps postal staff of one hundred had been increased by thirty per cent. to meet the emergency, just as it had to be increased after the troops left the salient and men of all ranks, drawing their extra Christmas allowance, were sending their messages and presents to those at home. It was confidently expected that by Christmas day all Christmas mail would be delivered — thanks both to the efficiency of the corps service and to the action of the Canadian authorities in closing the Christmas mails at home on November 10th.

It was a complex system, this active-service postal establishment, dealing with complex problems. The service was mobile, as it had to be to make deliveries to battalions, batteries, and units which were periodically on the move. The mail of those killed in action; the mail for casualties who might be in field or base hospitals in France, or in England, or on the way home; the mail for special details — all these services were specialized and required constant attention. But the system was so well established that all letters posted within the British area in France could be delivered within the day and a morning's London *Times*

could be read at Divisional Headquarters at night. This because of His Majesty's lorry express mail service.

Forty per cent. of the mail from Canada was sorted before it reached England. There all of it, together with the English mail, was assembled at the London Army Post Office. It was divided into direct bags for units. It crossed the Channel to the base post office. There were two services — regular and special. Official letters, papers, and letters written in the British area in France were despatched by the lorry express. Such mail was relayed by lorry from base to army, from army to corps and divisions and brigades. The regular letter and parcel post service went by rail to railheads within the corps area. Here the Canadian Corps Postal Service met it. Each division had a railhead post office and was supplied in normal times with two ton-and-half lorries (in such an emergency as Christmas-time the number was four, and the extra two each had a capacity of three tons). From railhead the mail was taken by lorry to divisional and brigade "dumps." Here it was delivered to mail orderlies of battery, battalion, and other units. It went by General Service wagon or limber to battalions and batteries, where it was forwarded by ration parties to the men in the firing line.

There were twenty-seven post offices altogether within the corps area. Before the Christmas rush, 1,000 unit bags constituted a normal incoming mail. Since December 6th, the total had averaged between 3,200 and 3,500. It was expected to reach 4,800. One brigade post office handled 279 outgoing registered letters and parcels in one day in the first week in December where the normal daily average was 100, and it sold stamps during the week to a total value of 1,200 francs. The registration fee was twopence, with an extra charge of a penny an ounce for all letters over four ounces. In addition to its registration work

and its stamp sales, the post office sold postal orders to a total value of over 1,150 francs in the same period.

Giving an intimate picture of the work of the Postal Service during the Christmas rush, a visitor to one of the brigade post offices on December 15th wrote: —

"Mail was being sorted for the front line and assembled for the base when I arrived. There were neat packages of parcels and letters on shelves and rough tables in the hut that served as a post office and quarters for the staff. There was also the touch of tragedy inseparable from the battle line. For in one corner, neatly piled, and decorated in some cases with the little paper tokens that are such a part of the Christmas season, were bundles of undelivered mail. They contained 'soldier's comforts,' cake, candy, gum, socks, cards, tobacco, cigarettes, chocolate, handkerchiefs, and other presents as shown by the customs declarations. But there was further writing on the covers — official testimonies from officers that those for whom they were intended had been killed in action. Such parcels go to the returned letter office in London, where the casualty is verified and the mail sent back to the original senders.

"So at battalion headquarters," the visitor continued, "I found other such parcels, and also many for the wounded scattered in hospitals in France and England. Great pains are taken to ensure delivery of parcels to men who have left their units through sickness or wounds or by transfer. As an example, the following is a true record of one case, that of a private who left his unit for the hospital on August 31, 1917: —

Parcel returned	— Sept. 30 —	re-addressed	} No. 5 Convalescent Camp.
" "	— Oct. 4 —	"	
" "	— Oct. 16 —	"	} Canadian Base Depot.
" "	— Oct. 30 —	"	
" "	— Oct. 18 —	"	
" "	— Nov. 5 —	"	} 3rd Can. Machine Gun Co.
" "	— Nov. 9 —	"	} Can. Corps Staging Camp.
" "	— Nov. 20 —	"	

"Every hospital sends in a record to the Assistant Adjutant-General, Canadian Section. Mail matter for casualties is redirected from such records. In the above case, the history of the casualty can be traced from the office records. No mail is returned undeliverable except in case of death or 'missing.' Mail for prisoners of war is forwarded to London to the Canadian Records Office and sent on from there."

The above details give some idea of the efficiency of the system and of the difficulties that had to be overcome.

There was tragedy in the work. A field post office was demolished by a direct hit from a shell on the Somme. A member of the service was killed just outside his office during the Vimy operations. At Passchendaele, however, the service did not suffer a casualty, though it worked under unprecedented conditions. Field post offices were nearly all in tents in the forward battle area, where no lights were allowed and work was impossible at night.

Finally, the service was not without its humourous side, though the humour was not always appreciated by the officials. Many quaint letters came into Headquarters; for example, the following:—

"I sent a letter to Pte. ——— but neglected to give his number which is ———. Will you kindly put the number on the letter and make certain of its delivery."

Now that number was up in the two hundred thousands. The letter was one of a normal fifty thousand a day. The men of the Postal Service found it, made sure of its receipt, and notified a concerned mother at home of its safe delivery.

Much of its Christmas cheer, the Canadian Corps owed to its Postal Service; much of it also to "Q." It was the pride of the corps that there were no better-fed men in France. It was the pride of "Q" to keep them so fed and particularly to supply every man

with every possible delicacy that war organization could permit to ensure the best of Christmas dinners. "Q" was straining to provide those delicacies, and while doing so it was carrying out countless other operations. The Navy is called the "silent service." "Q" might well be called the service of mysteries. Its operations were shrouded under routine orders which gave little suggestion of the extent of its administration. Its men worked at manifold tasks and only the initiated could either comprehend or appreciate the labours which fell to its lot. It provided, daily, food, and forage for scores of thousands of men and thousands of horses and mules. It worked in advance of the clock and it could check each last, least little item with a precision which was the despair of the careless. As it fed the men, so it clothed them and washed them and did a million other things — from saving "dripping" and rendering it down to grease to supplying great and little guns with tons upon tons of ammunition.

In each operation there was a story. Take that of bread alone. The company in the line had to indent four days ahead of time for its loaves. The wheat to make those loaves came from overseas. The Navy brought it to the base. At the base there were bakeries with a capacity of 500,000 pounds of bread, or 250,000 loaves, a day, and a personnel of twelve hundred qualified bakers. Baking went on day and night, with men working in shifts over groups of ovens. Ten per cent. of the bakers at one base port were Canadians. Others were to be found in many establishments. The Canadian Divisional Field Bakeries were all at the base except in periods of open warfare. One of these divisional units baked over 9,000,000 loaves in ten months — from February, 1917, to December, 1917. The loaves went from the bakeries to the base railheads, every pains being taken to prevent crumbling. There, with other supplies, they were loaded on a pack

NOVA SCOTIANS MAKING CLAY OVENS

THE SHOEING-SMITHS AT WORK

Canadian Official Photographs

train — a train with a number and whose destination was known to only two men.

There was no chance of favouritism in the distribution of food-stuffs. From the base to railhead, the pack train was under the charge of the Army Service Corps. At the railhead, the Divisional Supply Column took it over. If there was a system of light railways, as in the Vimy area, it was utilized to carry the food-stuffs on to the refilling station, where the work of the Divisional Train began. If there was no light railway system, — if open warfare, for instance, had taken the place of trench fighting, — the railhead would be the assembly centre for scores of great three and four-ton lorries, for the Divisional Supply Column was mechanical and lived by petrol. The Divisional Train — which, of course, was not a train, but a service of horses and mules and General Service wagons — came into action at the refilling point. It served battalion and battery quartermasters. It was an ordered, efficient, mobile machine which thought first in terms of food — which was its duty; second, in terms of horses — which it loved; and, third, in terms of itself, which it regarded with more or less content, according to the cleanliness of its wagons, the health and comfort of its animals, and the rapidity with which it could erect stables and build quarters on muddy wastes. From the refilling point, the Divisional Train supplied the transport lines of the fighting units, where battalion and battery quartermasters divided and sub-divided the supplies for the ration parties until each individual in each ration party had his exact share. These ration parties in their turn made final deliveries to the gunners and the infantry. And the whole work of rationing, confused enough in itself, was infinitely more confused by the fact that the strength of units was an uncertain quantity depending on casualties, sickness, leave, and other factors, and that this varying strength had to be anticipated four

days in advance. Ability to anticipate was not the least of the qualities of a quartermaster, and a good quartermaster took his greatest pride in the correctness of his estimates.

Much might be written of the detail of transport lines; of the care with which horses were fed and watered and groomed; of the lines of buildings erected in brief order out of the scantiest supplies of material; of the roadways made out of hundreds of thousands of " salvaged " bricks; but the story would be too long and the detail immense. " Q " had so many things to do. In another part of this work there is mention of the bath-houses for the men. " Q " built them. Something has been told of the work of the Salvage Companies at Passchendaele. They came under " Q." The Corps Salvage Unit was composed of Corps Headquarters and Divisional Salvage Companies and formed one of the greatest links in the economic chain of the army. All through 1916 and 1917, — in the great battles of the Ypres salient, the Somme, and Vimy Ridge, and during the quieter months when action gave place to routine, — The Canadian Corps Salvage Companies worked persistently and extensively, backed by battalions and battery and Headquarters organizations, as concerned as any civilians at home for the good conduct of their business. The results achieved in the two years were remarkable. Carefully compiled figures, in which a margin of no less than twenty-five per cent. was allowed for deterioration, showed a total saving by salvage in the period of £2,457,666, or roughly $12,000,000.

Besides these Salvage Companies, " Q " had contrivances for torturing old tins until they gave up their solder, and they gave it up, to the extent, for one month in the corps, of no less than 345 pounds. Mention has been made of saving dripping and rendering it down to grease. In the six months from June,

1917, to January, 1918, the dripping saved by the whole corps totalled nearly 300,000 pounds, with a value of nearly $20,000.

It was "Q," attending to such infinite detail, that was working to make the Christmas before Lens memorable, and the Canadian Red Cross and Chaplain Service and the Y.M.C.A. were straining just as hard. So were corps, divisional, brigade, battalion, battery, and company commanders, while the spirit of the corps that had gone through such a terrible year was nothing short of wonderful. What that spirit was is perhaps best given expression in the message which constituted the only editorial in the Christmas number of *The Listening Post,* that famous chronicle of the 7th Battalion. The heart not only of the regiment, but of all ranks and all units of the Canadian Expeditionary Force, was in it, and it read: —

"For the third time Christmas finds the Canadians under arms in the trenches of Flanders. What they have endured during the past three years; what they have hoped for, striven for — and in their thousands died for — is not yet in sight; but the spirit that carried the original Canadian division through the Second Battle of Ypres is still marching with the Canadian Corps to-day through all the mud and slime — and hell — of the modern battlefield, and will march with them, to the only goal that is worth striving for — Peace — and a Real Peace that will make a recurrence of this hideous nightmare impossible. 'Berlin or Bust' in letters a foot high was the motto that greeted one when the first trains rolled into Valcartier in August, 1914. 'Berlin or Bust' it is after three years — but silent now — written only in the thoughts of those who carry on.

"And to our own folks whose dearest wish was that we should be with them at the festive board this Christmas-time, just the old, old message, 'A Merry Christmas and a glad New Year' from the bottom of

our hearts. A Merry Christmas in the real and true sense of the word — not the abolition of the old customs in the absence of loved ones, but the whole-hearted enjoyment of all that is worth while. Life is short and this old world too small for misery and long faces — look on the brighter side of life and keep in training at smiling ready to welcome us back. And if in the midst of all you pause with sober faces and silently drink to those who have paid the utmost price, remember that they too — those happy, cheery lads cut down on the very threshold of life — would wish it so."

In the same publication, there was another message, this one from the commander of the glorious 2nd Brigade, then Brigadier-General Loomis, C.M.G., D.S.O., who wrote "from every member of the Western Canadian Infantry Brigade to anxious hearts at home, to assure them that they have our constant love and devotion, our daily thoughts, and our wishes for a Merry and Happy Christmas. Keep the Home Fires burning. Keep our places in your hearts and in our homes fresh and fragrant, for though long years and long leagues separate us, our love and loyalty know no space of time or distance." There was also a letter from the general to the officers, non-commissioned officers, and men of his brigade, a letter which ended: —

"It is three years, over, since the First Canadian Contingent sailed away from Canada, and they now march silently over the roads and lanes of France and Flanders because their thoughts are of Homes and Loved Ones far away. They know that Fathers, Mothers, Wives, Children and Sweethearts are also thinking of them and working for them.

"Happy Canada which possesses such well-loved Homes! Fortunate Country with such loving Fathers and Mothers, such faithful Wives, such devoted Children, such affectionate Sweethearts! So long as Canada possesses such as these, her Sons will be ready to

go to the ends of the world to fight for them, to die for them, and they will love them forever."

Many were the divisional and brigade messages that went home to the Dominion, but that sent officially from the whole corps read: —

"To our comrades and friends in support in Canada this Christmas message from the Canadian Corps and from every division, brigade and battalion, is a deeply sincere wish for your future happiness and our early reunion, coupled with the warmest feelings of gratitude and appreciation for the strong and splendid verdict of support recently expressed throughout almost every part of Canada. We feel to-day that the force behind us is of such strength and magnitude that it will inspire each one of us to greater deeds and nobler actions and will surely lead us to the goal of victory, peace and home."

To the fighting men themselves, Major-General Watson, Acting Corps Commander in the absence of Sir Arthur Currie, who was in England, sent the following official message: —

"The Corps Commander takes this opportunity of sending every officer, N.C.O. and man in the Canadian Corps all good wishes for Christmas. He trusts that the coming year may bring with it the attainment of our great objective, a victorious peace and a happy return to our near and dear ones in Canada. This is not a mere stereotyped wish. Behind it lies deep appreciation of the splendid work which has been carried to such a successful conclusion by every unit in the corps and also full recognition of the sacrifices that have been made, the difficulties that have been overcome, the hardships that have been endured, and the high standard of discipline that has been maintained. Your actions have made the name of our Homeland one to be revered, respected, and honoured now and throughout the years to come."

On Christmas Eve the front line was quiet. The

preceding twenty-four hours had been featureless save for an expensive Hun mistake which had caused three of his aeroplanes, in the poor visibility, to sweep their own trenches with machine-gun fire. Christmas day entered in with rain, but by the afternoon a proper snowstorm was raging, and a cold and clear evening saw the ragged country blanketed in white and transformed so that there was about the land the familiar appearance of Christmas at home. Men forgot the war, to drink the old toasts, observe the old customs, remember the old associations. In many messes that before had been little more than comfortable sheds, boasting perhaps two fireplaces, built of wood and hastily built, and lined inside with green canvas or sacking, the ugly rafters were hidden with paper decorations, holly, Christmas bells, Chinese lanterns, and other tokens of the season; walls were draped with the flags of the Empire and the Allies; and many men of many services and all ages sat down to drink to the King, absent friends, the corps, and the Dominion. The waits — members of theatrical companies belonging to the various headquarters — came in to sing the old songs. And where there were no theatrical companies and no formal messes, friendly groups in Armstrong and Nissen huts, in dug-outs and wrecked buildings throughout the area, had their own particular celebrations.

At the Corps Rest Station and in field ambulances and dressing stations, the wounded men had their Christmas cheer as they were having it in hospitals all over France. The Canadian Red Cross Society had provided cigarettes, cigars, chocolates, raisins, dates, fruits, nuts, games, and toys. No one was forgotten. Even men under arrest and undergoing punishment had their dinners of turkey and Christmas pudding. Of all the Christmas celebrations, none is more worthy of description than that at the Corps Rest Station. The institution itself merits a few

words. Operated in turn by the various field ambulances, its purpose was to prevent serious casualties by providing a complete rest and change for slightly wounded and nervously exhausted men and officers. In the Vimy area, it was established in a delightful old ivy-covered château with surrounding hutments in a quiet valley many miles from the firing line. It had a capacity of five hundred patients, and the treatment consisted of warmth, good food, clean clothes, hot baths, and rest. There were special officers' quarters, with a lounge-room, dining-room, bedrooms, and kitchen, in addition to private wards. There was an-another special ward for N.C.O.'s, a special ward for those suffering from " P.U.O.," that slight fever of unknown origin which was peculiar to the war, and another for those suffering from " scabies." The rest of the men, afflicted with blistered feet, rheumatism, and other ailments inseparable from the exposure, damp, mud, and cold of the trenches, were quartered together. Cases were confined to those likely to be cured in a fortnight. The station was generally full to capacity.

The war-weary private, tired and wet and miserable, was met at the admittance room. Particulars of his case were taken and he was assigned to a special ward. His pack was placed in a " stores " room, where an N.C.O. in charge saw that its contents were cleaned pending the man's departure. He handed over his rifle to have it cleaned and oiled. He himself was marched off to a bath-house, where he got a hot shower, next to the cigarette well described as "the greatest boon the trench man knew." His underclothing was taken away and sent to the laundry, and he was supplied with a clean issue. Then he went to his ward and a warm bed. When not in bed, he had a lounge-room in which to spend his time, a small library well stocked with books, and a recreation-room in which were cards and games provided by the Red

Cross. For his meals, he had jam in abundance, jam made in Canada by mothers and sisters and aunts, and one of his supreme delights after army rations. With jam he had other things not so delectable, but more sustaining. After two weeks of such treatment, he was ready for the trenches again. The barber had barbered him; the shoemaker had repaired his boots; the tailor had attended to his clothes; his pack was clean; his rifle was clean; his clothes were clean; he was clean; and his belly was full.

Many men of many services were at the Corps Rest Station on Christmas night — infantrymen, gunners, engineers, stretcher-bearers, men from mechanical transports, from trench-mortar and Stokes-gun batteries — these and others who had helped to make the glory of Canada in France and Flanders. The great hut that was their dining-room was cool with evergreen, brightened with innumerable red and white and blue and green streamers, lightened by many Red Cross and Chinese lanterns, and warmed by two big stoves. There were maple leaves to decorate the walls and many flags to cheer the room, while a Christmas-tree groaned under presents from home. The men who sat down to the banquet were dressed in the uniforms of their respective services or in hospital blue or in pyjamas supplied by the Red Cross. The dinner was worthy of the night and of the men who shared it. Here, as elsewhere, the C.A.M.C. and the Red Cross worked hard to make the period as happy as possible for the wounded. They succeeded. So, the Y.M.C.A. and the Chaplain Services vied with one another in helping all to have a good time. Wherever men were present in large numbers, there were concert parties or motion-picture shows. At Corps Headquarters, for instance, three hundred men comprising the area employment company enjoyed a dinner of roast turkey and veal dressing, boiled ham, mashed potatoes, and mashed turnips, Christmas pud-

ding and brandy sauce, nuts and raisins and tea and coffee. They were entertained by the Rambler Theatrical Company and later witnessed a special cinema show given by the Chaplain Service.

So the day passed. But another event that had to do with the season has still to be recorded. On the afternoon of December 27th, in the Chaplain Service cinema at Camblain l'Abbé, where Corps Headquarters was situated throughout this period, the Acting Corps Commander presented gifts to the children of the village. Their mothers and fathers came with them. There was a concert in their honour and Santa Claus was there with games, toy pistols, dolls, balloons, blocks, and other presents. Everyone was delighted and not least those officers who had contributed through their messes to meet part of the expenses and had abandoned their work for an hour to watch the pleasure of the youngsters. With that courtesy which is so much a part of France, the little visitors, through one of their number, gave thanks for their entertainment in these words: —

" We have been too pleased and honoured by your gracious invitation not to have responded in great numbers. Moreover, in coming to you we are given a happy opportunity of expressing both our admiration for, and our gratitude to, the British Army and particularly the Canadian Corps. We have followed your triumphant progress in Belgium, at Messines, at Passchendaele, Vimy, Hill 70, and Cambrai; and your victories have increased our gratitude and our love.

" The gallantry of the Canadians will be recorded in history with our cities plundered, burned, and ruined by a barbarous enemy. It is impossible to admire too much the magnificent behaviour of Canadian officers and soldiers in this terrible drama in which the fate of Belgium, France, justice, and civilization are at stake.

" God has seen and recorded your splendid services.

He will reward your gallantry, granting you an early and decisive victory which will put an end to sacrilegious encroachment upon the rights of nations. We will help you with our prayers. He will hear them and grant them and soon we shall have peace between the nations established on the eternal principles of right, justice, and liberty.''

CHAPTER III

HOLDING THE LINE

IT was a grim New Year that opened for the Allies on the western front on January 1st, 1918. Moving to Bolshevism, betrayed and betraying Russia was now a menace to the Entente, and the large German forces which had been held on the eastern front during months of uncertainty could be released in the spring for the decisive theatre in the west. Italy had not recovered from the staggering blow to her prestige and *moral* caused by Austrian forces and internal corruption. America was moving mightily towards the firing line, but she could not be effective for months. France and the British Empire stood practically alone against the whole forces of the Central Empires, which enjoyed great advantages from internal lines of communication and which were prompted to desperate efforts by the realization that once the United States became powerful in the theatre of war victory for them would be impossible.

Throughout the long battle line from Switzerland to the sea, there was a vivid consciousness that the coming campaign would be as deadly as anything in the history of the war. There was no assurance that the Allied line could be maintained along its whole length or that there would not be extensive retirements in particular areas, but everywhere there was confidence that, whatever the immediate success of German arms, there would be no break in the Allied front, no shattering of the Allied powers of resistance, no irretrievable disaster, no dishonour to the arms of the Entente. It was felt that a great storm was brewing which

would break down some of the barriers of trench warfare, which would overwhelm some areas through the sheer might of its ferocity, but which would be impotent to destroy the solid foundations of the power of the Allies. Nowhere was there thought of defeat. Men were sure that the storm would come; they were equally sure that the storm would pass. And then they anticipated another and a greater fury of armed hosts, reinforced by the men and the materials and the munitions of the United States, that would follow swiftly upon the ebbing tide of the enemy's last hopeless endeavour and would break his forces and demolish his breastworks and send him stumbling, baffled and broken, back to the Rhine and beyond.

It was with such thoughts that the Canadians in front of Lens welcomed the New Year. Their spirits were good. Their trenches on the average were far better than they had known before in such seasons. They had fuel for fires and places to build the fires. The health of all ranks was excellent. The physique and training of recent reinforcements had given satisfaction. Battalions were up to strength. Whatever the spring might hold, the present might have been much worse. And they had the further satisfaction on New Year's night of administering salutary treatment to certain audacious Germans. The enemy endeavoured to raid the line in no fewer than four places. The main attempt occurred early in the evening in the Mericourt sector, when three groups, carrying machine guns and protected by flanking parties, attacked our line after it had been subjected to a short but intense barrage. Twelve men succeeded in entering a portion of our trenches, but were driven out, and the raiders were forced to retire, leaving three prisoners in our hands. Three hours later in the same area, one of our posts was attacked, but here the enemy had no success and presented us with another prisoner. Further north two other attacks were launched after heavy

bombardments. Neither one reached our lines. The first was easily beaten off, and the second, executed in some strength, was repelled effectively. The enemy must have suffered appreciable losses from our artillery, machine-gun and rifle fire. At least his ardour was dampened, for nearly a fortnight passed before he attempted any further familiarities.

In the meantime, the Germans continued persistently shelling our back areas. The desire for useless destruction was strong upon them. Noeux-les-Mines, Hersin, Coupigny, Bruay, and other towns in the Lens district, together with Bethune, many miles behind the lines, were subjected to intermittent shelling by day and bombing by night, which threatened to reduce them to ruins, making of Bethune — as it was eventually made — another Arras or Ypres, and of the towns such wastes as were Liévin, Angres, and Vimy within the battle zone. Churches were hit, schoolhouses damaged, private shops and dwellings wrecked, and all with a steadily rising toll of casualties to men, women, and children. Another page was being written in the war tragedy of France. In these little places, homes were laid waste in a day, and as the air war developed other homes were demolished in a night — the horror of darkness adding to the horror of bombs and shells. Little children were killed or wounded as they played in the streets. Fathers lost daughters; mothers, sons; the curés of tiny parishes grew old because of broken hearts; and the cemeteries of little churches were filled before their time. But the day's work went on and the heart of France continued strong and the men of Canada, whose honour it was to defend a portion of this heroic land, bent a little more stubbornly to their task.

It has been said that the health of the Canadian forces was good. At this time, owing to complete typhoid and para-typhoid inoculation, our sick wastage was the lowest in the British army. During the

month of December, there had been only two cases of typhoid in all ranks of the corps, an extraordinary record when compared with the appalling figures of South Africa and earlier campaigns, when typhoid was one of the greatest scourges armies had to face. In reducing cases to the vanishing point, the Canadian Army Medical Corps not only scored a remarkable victory over all active-service sources of infection, but also had to contend against the prevalence of the disease amongst the civilian population. Equal success was obtained in dealing with trench feet. In the winter of 1914-15, when the heroic British forces were fighting day and night, trench feet was one of the chief causes of sickness and the gravity of the situation was aggravated by the fact that the victims could not be employed again on winter service in the trenches. In the beginning of the next winter, the question was taken up actively by the medical officers of the 1st and 2nd Canadian Divisions. Meetings of combatant officers and other ranks were called by the medical authorities at which preventative measures were explained and the co-operation of all was secured to combat the evil. Preventative measures included dry foot massage with warm whale oil or grease and daily supplies of dry socks, the latter being forwarded with the ration parties to the men in the firing trenches. The result was that the divisions had very few cases of trench feet, and during the winter before Lens an even better record was made for the whole corps. Another factor that contributed materially to the health of the men was the Corps Dental Laboratory, which was constantly extending its activities and improving its service.

The second week of January closed with considerable activity all along the Canadian front. In forty-eight hours, there were no fewer than five raids, our men entering the enemy's lines twice while he made three attempts against our positions. Early on Sat-

urday morning, after we had broken into his trenches and captured two prisoners, he attacked in three parties, each twenty strong. Two of them never succeeded in reaching our wire; the third penetrated our trenches, but was driven out immediately. Again on Saturday night, after a short artillery barrage, we raided the German lines, but the enemy left his battered trenches and retired before our attack. Clashes between patrolling parties were, of course, of frequent occurrence. In one a Canadian officer and three men, creeping up to a strong enemy post, threw all their bombs into it, and, retiring into an empty house, sent back urgent appeals for more ammunition. The enemy was so affected by this gentle attention that he "opened up" with his artillery and trench mortars along half the front. Our guns replied and for ten minutes there was all the thunder of a minor engagement.

A few days later, Canada in France gave the Germans another taste of its mettle. Two officers and twenty-four other ranks raided the hostile lines just east of Lens and captured eleven prisoners, without suffering a single casualty. At almost the same hour another of our patrolling parties, operating opposite Mericourt and consisting of two officers and eleven men with one machine gun, crept right up to the enemy's wire, ambushed a hostile working party, and sent it hurrying for cover. Later in the same evening another of our patrols, working in Lens itself, rapidly unloaded its whole supply of eighteen bombs upon some neighbouring Germans. One result of these raids was to reveal the presence on our front of the 190th Infantry Regiment of the 220th Division, a unit well known to our men, who had taken its measure twice and with success in memorable engagements.

While these operations were proceeding in the battle zone, there was no cessation in the entertainments and concerts behind the line or in the educational work be-

ing carried on by the University of Vimy Ridge. After the first month's trial by the 3rd Canadian Division, the university was pronounced a success and arrangements were made to extend its activities to the rest of the corps. Work had been carried on when the division was in the line and when out of it. Fourteen lectures were delivered altogether in the first month, three of them when the division was in action. Special classes in agriculture, business efficiency, applied science, and physics had been held nightly, some in a French public school-house, others in a tent in a shell-shattered village, and one in an abandoned brewery. As an indication of the active interest taken by the men, a weekly report of one of the reading-rooms showed an average daily application of ninety-six for books and pamphlets and a total attendance of two hundred. Numerous applications had been received from undergraduates and other students for courses in advanced reading, and these had been referred to the central committee in London, representing Canadian universities, which had outlined special courses.

On January 20th, Sir Edward Kemp, Minister of the Overseas Military Forces of Canada, visited the corps. He brought with him welcome assurances that the troops in the field would not want for reinforcements. "The fine record of the corps, which has never been under strength for two weeks since its formation, will be maintained," he said. "With the men now in training and those available under the Military Service Act, the Dominion has quite enough men to keep its glorious divisions up to strength." Sir Edward was greatly impressed with the splendid *moral* and high spirits of all ranks and this despite a week's thaw which had turned the frozen ground to mud and the low-lying areas to marsh. In some portions of the line, the trenches were one and a half and two feet deep in water, while others were little more than quagmires. There were instances where men

had to be pulled out of the slime by their companions, while in some cases the infantry were working in mud nearly up to their boot tops. The greater part of the line, however, was in good condition, and it was a great satisfaction to the troops to know that the Germans, having lost the advantage of the high ground which they had held so long and having been driven to the lower levels, were in worse plight than our forces anywhere on the front. Our patrols could hear Fritz walking in the water and baling out his trenches and their hearts were greatly gladdened by the sounds.

Sir Edward's visit was a flying one. He spent only twenty-four hours at Corps Headquarters, visiting Vimy Ridge and meeting divisional and brigade commanders. He was able to tell them that Sir Douglas Haig held their troops in warm esteem and spoke highly of their military achievements. Three days later, Belgium paid a pleasing tribute to the services of the Canadians in the Ypres salient, when Lieut.-General Orth of the Belgian Mission, in the name of King Albert, decorated Lieut.-General Currie with the *Ordre de Couronne* and *Croix de Guerre,* in recognition of his personal valour and of the splendid record of the corps. Shortly afterwards, General Smuts of South Africa was a visitor at Headquarters and expressed his admiration of the work done by the Canadian troops. He was followed by representatives of the London War Committee of the Canadian Red Cross, who made a detailed examination of the activities of the society in the forward area. They were able to submit a highly satisfactory report to Canada, supported by the personal testimony of the Corps Commander, who assured them that: "The activities of your society have been of great value to the Canadian forces and have been highly appreciated. In supplementing the work of the C.A.M.C., it is doing a vital service. Had it not been for the splendid generosity of the Canadian people, men wounded in action would

be denied comforts which are only less than necessities. I hope Canada will respond as generously in the future as it has in the past to the appeals of a society which is giving such splendid service."

Routine warfare persisted on the Canadian front until well on in February, with a slight increase in activity as spring approached. Our artillery was active with destructive shoots, and clear nights gave the flying services much opportunity for bombing raids, but it was not until February 5th that there was any appreciable activity amongst the infantry. Then two successful raids were carried out north of Lens by a Central Ontario battalion, which succeeded in penetrating the enemy's lines in two places. One party got within twenty yards of the German wire before it was discovered and heavily bombed, while our front trenches were subjected to a sharp artillery barrage. Despite vigorous opposition, however, the position was rushed. The second party had much the same experience, though it succeeded in getting farther into the hostile trenches. Two hours later, supported by their artillery, German raiders made an attempt in strength against our lines in the Mericourt-Avion sector. They met with such a reception from our rifle and machine-gun fire that they were forced to retire with numerous casualties and leaving five prisoners in our hands.

From the middle of February liveliness slowly increased all along the Canadian front, which extended from Acheville to Loos, both inclusive, a total length of approximately thirteen thousand yards. It was the longest line ever held by the corps, but despite three and a half years of war the Dominion's fighting strength in both men and guns was constantly increasing. The overwhelming support of the Military Service Act in Canada had placed the military authorities in a position where they were not only sure of reinforcements, but were able to add largely to existing

fighting units and to make extensive changes in the corps' establishment. The reorganization of the British forces in France was proceeding at this time on the basis of three instead of four battalions to an infantry brigade. This change was largely due to the shortage of man power in the British Isles. There was a strong agitation for Canadian reorganization on similar lines. Those who supported it urged that the 5th Division should be brought over to France from England and that the Dominion should put two corps in the field. Sir Arthur Currie opposed these proposals, contending that they were not warranted by experience in the field and that "owing to the severity of the losses suffered in modern battle the man power of Canada was not sufficient to meet the increased exposure to casualties consequent on the increased number of Canadian divisions in the field." He was supported by Brigadier-General B. de P. Radcliffe of the General Staff of the corps, a soldier whose services to Canada can hardly be exaggerated. Counter-proposals were submitted to the Canadian military authorities by General Currie, who recommended continuation of the one-corps organization, with the creation of certain new units and the addition of one hundred of all ranks to the establishments of the infantry battalions. The tremendous strain on the infantry at Passchendaele to supply working parties for the engineers and personnel for such other services as machine-gun units had demonstrated the necessity for increased infantry strength and extensive changes in the Engineer and Machine-gun Services. Informed by the experiences of the past, anticipating the operations of the future, and strong in the assurance of adequate reinforcements, General Currie proposed a total increase in personnel of 315 officers and 13,755 other ranks, and the following important changes in the organization and strength of various establishments: —

	OFFICERS	OTHER RANKS
Reorganization of Canadian Engineers, involving, in addition to absorption of four pioneer battalions and three field companies of 5th Division, an increase of.....	163	3,822
Reorganization of machine-gun companies into machine-gun battalions, involving increase of.....	8	1,100
Formation of one additional company for each of the four machine-gun battalions and necessary increase of battalion headquarters	80	1,953
Reorganization of 1st Motor Machine-Gun Brigade and creation of 2nd Motor Machine-Gun Brigade, involving, in addition to absorption of three machine-gun companies of 5th Division, an increase of.....	7	263
Increase of 100 O.R.'s per infantry battalion	—	4,800

The plans of the Corps Commander received the favourable consideration and support of the Commander-in-Chief and were approved by the Minister of the Overseas Military Forces of Canada. Necessary steps were taken to effect the reorganization as rapidly as possible. There was need for haste. The enemy's attitude grew daily more aggressive. Destructive artillery " shoots " and extensive gas-shelling were of frequent occurrence, and the enemy was employing trained storm troops for raiding activities. Early on the morning of February 13th, the Canadians responded to the somewhat boisterous tactics of the Germans by raiding their lines near Hill 70 and again in front of Lens and capturing ten prisoners and four machine guns. At practically the same time, far south at Hargicourt, the Royal Canadian Dragoons, in the trenches once again, crossed one thousand yards of No Man's Land, took thirteen prisoners and two machine guns, destroyed four trench mortars, and bombed both the enemy's front and support lines.

KING'S COLOURS — REGIMENTAL COLOURS

MAJOR C. E. GRANSHAM, M. C. — CAPT. L. G. FRANCIS, M. C.

LT.-COL. E. W. SANSOM — LT.-COL. S. W. WATSON, D. S. O. — MAJOR R. MURDIE, D. S. O.

OFFICERS OF THE FIRST BATTALION MACHINE-GUN CORPS

While the raids in the Canadian area were not extensive operations, the one in the neighbourhood of Hill 70 was carried out in some strength by volunteers from Quebec, Central Ontario, and Manitoba regiments, who broke into the hostile lines after a heavy barrage from our artillery and captured six prisoners and two machine guns. In front of Lens, the attack was carried out by Saskatchewan troops, who operated in two parties, supported by artillery, trench-mortar, and Lewis machine-gun barrages. Between them they took four prisoners and another pair of machine guns. The raids confirmed the presence of crack German troops opposite the Canadian front, the prisoners captured belonging to the First Guards Regiment.

With such fighting activity there was ushered in a memorable day at Corps Headquarters. At noon on February 14th, Belgium again honoured Canada and gave striking appreciation of the value of Canadian services at Passchendaele and at other historic combats in the salient. Fourteen Canadian officers were decorated by General Sir H. S. Horne, commanding the First Army, with the Belgian *Croix de Guerre*. At night, officers of the 1st Division still on active service met at the Officers' Club to commemorate their arrival in France three years before. Over a hundred were present, bringing with them the memories of many battles and the knowledge of a great tradition. Heroes of the "Old Guard," they had taken no account of the cost, but had come at the call when the menace to the Empire sent the bugle of Henley blowing over the seven seas. They had left Valcartier in the greatest Armada in history, a fleet such as Drake had never imagined when he left the Sound to shatter the forces of Spain. They had landed at Plymouth to endure hard and weary months in the mud of Salisbury Plain, and then with the spring they had crossed the Channel to St. Nazaire and so on to Neuve Chapelle. From Neuve Chapelle the fate of war had

taken them to the salient where they and those with them had written the epic of Second Ypres, when the sons of the Dominion had battled desperately against terrific odds, under gas clouds that poisoned the air and turned days and nights into agony. And ever since they had been writing other famous chapters in Canada's history, chapters telling of Festubert, Givenchy, St. Eloi, Zillebeke, the Somme, Vimy Ridge, Lens, and Passchendaele. A Canadian band played in the ante-room, but could hardly be heard amidst the babel of voices that welcomed old companions or spoke of hard-fought struggles in earlier days or told of brave friends "gone out" in service of King and Empire. Men who had been captains and lieutenants three years ago were majors and colonels. Tunics that had been bare when the force landed in France were marked with honours and awards that told of distinguished conduct in the field. Majors and colonels were now brigadier-generals or commanders of divisions — tried men of military worth, tested in many struggles, proved in vital things.

Sir Arthur Currie welcomed his guests in a speech as happy as it was fitting. It was such a heart-to-heart talk as a man might have with his friends — light in tone for the moment, changing then to the recitation of grave thoughts and high aspirations, and then lighter again. But the message that Sir Arthur gave to his officers was one of hope and inspiration, of confidence in the year's struggle that lay ahead, of conviction in the superiority of the fighting Canadian Corps over the enemy, of stern resolve that the men of the Dominion overseas should be utterly worthy of the Canada at home that had supported them and was supporting them so splendidly. He dedicated his veterans again to war service.

Sir Arthur introduced the divisional commanders, saying as he did so that they needed no introduction. As each commander rose to speak, the applause broke

out afresh, for each one of them was of the First Canadian Expeditionary Force, and the veterans that night knew no distinction of brigade and brigade or division and division except such distinction as had been won on the battlefield. The officers who were present belonged to all divisions because of that wise policy that took the originals from their veteran force and gave them other positions and other commands amongst other units. Following the divisional commanders, another rose to speak and the voice of the artillerymen could be heard even above the enthusiastic welcome of those from the infantry. For General Morrison, the Master Gunner of the corps, was on his feet. Prince Arthur of Connaught followed him. Because of himself and because of his father, whom Canada for five years had honoured as he honoured the Dominion, round after round of cheers shook the roof.

Then came, perhaps, the most pleasant feature of the evening. Ever since its formation, the Canadian Corps had known the wise guidance and benefited from the war experience of such British soldiers as General Radcliffe, the B.G.G.S. of the corps, General Farmer, A. and Q.M.G., and General Ironsides of the 4th Division. Both Generals Radcliffe and Farmer were at the dinner and from all present there came a spontaneous, reiterated demand that they should speak to the men with whom they had been associated for so long and for whom they had done so much. It was a timely and sincere appreciation of services ably rendered.

Other speakers were heard. The night passed with speeches and songs. The temper of those who dined was one of optimism and unfaltering faith in the noble cause that had brought them overseas; of just pride in the past; of iron determination that the vital work upon which they were engaged should not be finished until victory was secured and the world freed from

the curse that had broken so many hearts, wrought so much agony, and laid waste so many lands.

It was a happy, historic reunion — touched with the sadness inseparable from such a meeting. Old comrades had gone — many of them. They received their silent tribute of respect when Sir Arthur Currie, after his welcome, asked those who dined to respond to a silent toast for the departed, and the much-loved padre of the 1st Division, Canon Scott, recited his poem: —

THE SILENT TOAST

"They stand with reverent faces,
And their merriment gives o'er,
As they drink the toast to the unseen host
Who have fought and gone before.

"It is only a passing moment
In the midst of the feast and song,
But it grips the breath, as the wings of death
In a vision sweeps along.

"No more they see the banquet
And the brilliant lights around;
But they charge again on the hideous plain
When the shell-bursts rip the ground.

"Or they creep at night, like panthers,
Through the waste of No Man's Land,
Their hearts afire with a wild desire
And death on every hand.

"And out of the roar and tumult,
Or the black night loud with rain,
Some face comes back on the fiery track
And looks in their eyes again.

"Again the love that is passing women's
And the bonds that are forged by death,
Now grip the soul with a strange control
And speak what no man saith.

"The vision dies off in the stillness,
Once more the tables shine,
But the eyes of all in the banquet hall
Are lit with a light divine."

The evening ended with the world-wide prayer of the Empire — God Save the King. Men went forth into the night to face more days and nights of battle

strain. Whatever the future might hold, they were determined that the record of Canada in action should not fail because of them.

For a week after the dinner, affairs went quietly along the front. Then early on the morning of February 20th, the men of a famous Winnipeg regiment, armed with rifles, revolvers, and bombs, according to choice, but largely with their pet club, the knobkerry, raided the German trenches just south and east of Avion. In less than twenty minutes, they broke into the enemy line in two places, bombed his dug-outs, captured six Germans, killed and wounded many more, and returned safely to their own trenches without suffering a single casualty. Three minutes before the attackers went over the top, our 18-pounders, 4.5's, and 6- and 8-inch guns swept the hostile line with barrage fire, which lifted as the Winnipeg men went forward until our guns were covering the opposing trenches with a box barrage, while north towards Lens and south towards Mericourt supporting artillery was further confusing an already bewildered enemy. Under the protection of the guns, the raiders went across in two parties. The one to the right advanced in the open, meeting increasing opposition until the fight developed into a hand-to-hand struggle on the German parapet, in which three of the enemy were killed, while a hostile machine gun was taken care of by a supporting patrol. The party to the left followed a sap until it reached the open and encountered an enemy post. Overcoming it in a moment, they directed the steps of two prisoners towards our lines, and then the party divided into two groups, one going forward to a point beyond the original objective and bombing enemy dug-outs, while the other engaged in a slag-heap battle which resulted in the capture of two more prisoners. Upon their withdrawal, they picked up another pair of Germans who were endeavouring to escape from the main party, which had been operating on the right.

Altogether, the raid was carried out with neatness and despatch, and it gained added interest from subsequent identification of the prisoners, who proved to be from the 23rd R.I.R., old enemies whom the Canadians had thrashed soundly at Passchendaele.

The heaviness of our barrage fire and the extent and suddenness of our attack had made the Germans nervous, so that until daybreak No Man's Land was bright with their flares. Then they subjected our lines to a projector gas attack as well as a bombardment with sneezing and mustard gas shells. Two days later, they launched a raid against the lines of a Manitoba regiment, which was holding part of the Lens sector. Though it was supported by intense artillery fire, it was broken up before it reached our wire. At the end of the week, the Germans attempted another raid in the Lens sector. This also failed. Then the Canadians replied by launching no fewer than three raids in twenty-four hours. Without support of artillery, an officer and seven other ranks of a Nova Scotia regiment crept into the enemy positions in Lens and bombed their dug-outs, finally withdrawing with a prisoner. Following this, a Quebec regiment undertook to carry out a daylight operation, but under our intense artillery fire the enemy withdrew from their front lines and no prisoners were secured. At approximately the same time, a Manitoba battalion, south of Avion, carried out a daylight stealth raid. They were entirely successful in penetrating the hostile trenches, but discovered no enemy, the defenders having discreetly retired, leaving only an abandoned machine gun as spoil for our men.

February gave place to March, which came in like the proverbial lion. With it, the Germans began strong raids up and down the British front, evidently seeking identifications and testing the strength of the opposing forces. It was not until March 4th that the Canadians were subjected to such onslaughts.

Then, heralding a raid in force against the 3rd Battalion, which was holding part of the Lens sector, with a fifteen-minute intense artillery and trench-mortar barrage directed against the whole Lens front and with lighter barrages on the Avion and Hill 70 fronts, the enemy attacked shortly after five o'clock in the morning. Armed with liquid fire, one hundred and twenty men of the 55th Regiment and the same number of Divisional Storm Troops succeeded in penetrating a portion of our front line after hand-to-hand fighting. No sooner had they effected an entrance than the 3rd Battalion organized a counter-attack in force and, with rifles, bayonets, and bombs, drove out the enemy before he could secure either prisoners or identification. During the retreat, the Germans were severely hammered by our artillery, trench mortars, and machine guns. Not since Passchendaele had so many of our guns spoken together for so long a time or with such effect. All along our front our heavy and field artillery poured shells into the enemy's forward lines, support areas, and communications. Our casualties during the raid were three, while the Germans' losses were estimated at at least a hundred, and two prisoners were left in our hands.

For hours after the attack, our guns continued unceasingly pounding the foe, dominating his artillery and playing havoc with his trenches. Then early the next morning, the 3rd Battalion, to prove its mettle, raided the German position. Two officers and sixty-three other ranks, supported by an artillery barrage, entered the enemy's lines in the southern part of Lens, found the foe hidden in strength in dug-outs and cellars, bombed them, overcame numerous small parties in hand-to-hand fighting, and returned with a prisoner and six casualties, while they placed the German losses at not less than thirty. Having failed in his raid, despite his liquid fire, having been raided in turn and successfully, the sullen enemy spent some hours

bombarding our lines with gas and high explosive, but no further action developed. For its spirited defence and plucky raid, the 3rd Battalion was personally congratulated by the Commander-in-Chief.

The Germans did not make another attempt on anything like the same scale. Indeed, they apparently admitted the raiding superiority of the Canadians, for the next week was largely remarkable for increasing employment of gas. On the morning of March 9th, the enemy began a concentrated bombardment of our lines west and south of Mericourt, which lasted two hours and in which about two thousand rounds of gas shells were fired, consisting of all calibres up to 15-c.m., but chiefly 7.7-c.m. A percentage of shrapnel was also used. At the same time, he carried out a light gas bombardment of Cité St. Pierre, which he repeated on the following night.

Much retaliatory gas-shelling was practised by the corps in reply to these activities, and on the morning of the 15th the Canadians made a most successful raid. In twenty-five minutes, on the Mericourt front, the 5th Canadian Mounted Rifles captured nineteen prisoners, killed twenty Germans either by bullet or bayonet, blew in a number of enemy dug-outs, and inflicted many minor casualties. In addition, an enemy machine gun was captured. His forward, rear, and assembly areas and his communications were shelled and gassed by our heavies and field-guns and swept with fire from our machine guns and trench mortars. Our men moving to the attack had to cross half a mile of No Man's Land before taking up their positions for the assault. This difficult manœuvre over a machine-gun-swept area was carried out with complete success.

A covering party of fifty first took up its position; then, during an interval of an hour, while the raiders, one hundred and forty strong, were moving up beside them, a miniature pitched battle was waged not two hundred yards away between a patrol of a Central

Ontario regiment, fifteen strong, and an enemy raiding party of double that strength. When the fray was over, the Germans had been forced to abandon their offensive intentions and we had taken two prisoners, both mortally wounded. The covering party for our major raid had been unable to take part in the fight lest it should betray the larger operation. Its restraint was rewarded by a subsequent lull over the whole front, the Germans evidently thinking that the failure of their raid marked the end of the morning's proceedings. At 5.30 a.m., they realized their mistake.

Our whole front south and north of Mericourt woke up on the minute. To the north beside Avion, an Eastern Ontario regiment created a diversion with a smoke screen and dummy figures. To the south by Acheville, Saskatchewan troops made a like demonstration. The effect of the operations was to bewilder the Germans completely and divert their fire from the decisive point where the Canadian Mounted Rifles were now going forward under the protection of a mixed high-explosive and smoke barrage, supported by our heavy trench mortars, machine guns, and Stokes guns, and by our heavies, which shelled the enemy's main machine-gun positions and strong points with gas, compelling the crews and garrisons to keep underground. At the same time, our artillery to the north and south was supporting the attack, and counter-battery guns were doing excellent work on enemy gun positions. These activities were so successful that our men scarcely encountered any opposition in advancing to the hostile outpost line. They then moved forward to the German "living line," where the party divided, one half fighting and bombing its way up two hundred and fifty yards of hostile trench to the north, and the other doing the same to the south. Enemy dug-outs were blown up and the men who offered resistance were either killed, captured, or driven out. Select parties then went forward another

two hundred yards. One of our men, after three members of a hostile machine-gun crew had been killed, ran up and bayoneted the fourth, put the gun over his shoulder, and tramped across eight hundred yards of No Man's Land back to the O.C. of the regiment, to whom he presented the gun as a memento. Every detail of the morning's operations worked like clockwork. The men had been carefully trained " over the tapes " for a week before the attack and were in splendid fighting form. Having demonstrated their ability, they retired and reached their lines, after passing through a heavy barrage with a total of less than twenty casualties, most of them of a minor nature.

On the Canadian, as on many other parts of the western front, the enemy was now restless. Spring had come. Any day might herald the opening of a great offensive. The Canadians were well prepared either for attack or defence. During the winter, they had employed every possible hour in improving their positions in the vital Vimy area. How vital that area was and how great were those preparations can, perhaps, be best indicated by direct quotation from Part One of the Interim Report of General Currie on the operations of the Canadian Corps during the year 1918, as published in the report of the Ministry, Overseas Military Forces of Canada: —

" It will be recalled," General Currie writes, " that the ground held by the Canadian Corps throughout this period [January 1st–March 21st] had been captured by the Canadians in the Battle of Vimy and subsequent actions, and held by them practically since its capture, except for a short interval during the Battle of Passchendaele. The area had been considerably improved during this time, and a very complete system of trench railways, roads, and water supply was in operation. Very comprehensive defences had been planned and partially executed.

"Behind Vimy Ridge 'lay the northern collieries of France and certain tactical features which cover our lateral communications. Here . . . little or no ground could be given up . . .'[1]

"A comparatively shallow advance beyond the Vimy Ridge would have stopped the operation of the collieries, paralyzing the production of war material in France, as well as inflicting very severe hardship on the already sorely tried population. In conjunction with the shortage of shipping which practically forbade an increase in the importation of coal from England, the loss of the northern collieries might have definitely crippled France. On the other hand, a deep penetration at that point, by bringing the Amiens-Bethune railway and main road under fire, would have placed the British army in a critical position by threatening to cut it in two and by depriving it of vital lateral communication.

"The tactical and strategical results to be gained by a moderate success at that point were so far-reaching in effect that, notwithstanding the natural difficulties confronting an attack on that sector, it was fully expected that the German offensive would be directed against this, the central part of the British front.

"The French knew well the value of the ground here. To recapture it in 1915 they had engaged in the most savage fighting of the war and sacrificed the flower of their regular army.

"Although the British front had later been extended to the south, and Vimy Ridge had become the centre sector of the British army, the French always manifested the deepest interest in this sector, and it was often visited by their generals and other officers of high rank.

"With the prospect of a German offensive now confronting us, I ordered that the defences should be

[1] Extract from Commander-in-Chief's Despatch, July 8th, 1918.

revised, to take advantage of the lessons recently learned and to embody the latest methods. Moreover, instructions had been issued by the First Army defining the policy of defence to be adopted and the methods to be followed.

"The completion of the revised corps defences and the execution of the new army programme resulted in the organization of a very deep defended area, consisting of successive defensive systems, roughly parallel to the general line of the front and linked together by switch lines sited to protect both flanks.

"Each defensive system was designed to protect definite topographical features, the loss of any one of which would considerably handicap the defence by uncovering our artillery.

"As planned, the main framework of the defence in depth was based upon machine-gun positions, protected by belts of wire entanglement so placed, in relation to the field of fire of the machine guns, that they were enfiladed over their entire length. The whole area was compartmented in such a way that the loss of ground at any one point could be localized and would not cause a forced retirement from adjoining areas.

"Machine-gun emplacements of the Champagne type were constructed, and dug-out accommodation for the machine-gun detachments was provided in the deep tunnels of these emplacements.

"This framework was completed as rapidly as possible by trenches and by defended localities organized for all-round defence.

"A great many dug-outs were made to accommodate the garrisons of these localities, and for dressing stations and battle headquarters. Advantage was taken of the possibility of utilizing the subways tunnelled in 1916-17 for the attack on Vimy Ridge, and in addition steps were taken to create an obstacle on the southern flank of Vimy Ridge by the construction of

dams to enable the valley of the Scarpe to be flooded as required. Trial inundations were made to ensure the smooth working of these arrangements.

" A great deal of care was given to the distribution of the artillery in relation to the policy of defence. Three systems of battery positions were built so as to distribute the guns in depth and sited so as to cover the ground to the northeast, east, and south, in case the flanks of the corps should be turned. These batteries were protected with barbed-wire entanglements and machine-gun positions against a sudden penetration of the enemy, and they were designed to become the natural rallying points of our infantry in this eventuality.

" Successive lines of retirement were also prepared, battery positions were selected, organized, and marked, cross-country tracks were opened up, and observation posts, echeloned in depth, were located and wired in.

" On Vimy Ridge alone, seventy-two new battery positions were built and stacked with ammunition: these positions could be used either for the distribution of the corps artillery in depth, or as positions which reinforcing artillery could immediately take up in the event of a heavy attack.

" The greatest energy, enthusiasm, and skill were employed in the prosecution of the work by all concerned, and I am greatly indebted to Major-General P. de B. Radcliffe, then B.G., G.S., for his untiring and devoted efforts.

" The weather being much finer during the months of January, February, and March than is generally the case, very good progress was made, and the following defensive works were completed in rear of the main front-line defensive system: —

250 miles of trench;
300 miles of barbed-wire entanglements;
200 tunnelled machine-gun emplacements.

"In addition to the above, existing trench systems, dug-outs, gun positions, and machine-gun emplacements were strengthened and repaired. Each trench system was plentifully marked with signboards and many open machine-gun positions were sited and marked.

"Machine-gun positions, defended localities, and certain portions of trenches were stored with several days' supply of ammunition, food, and water for the use of the garrisons.

"The importance attached by the French to the Vimy Ridge sector was further emphasized by the visit of General Roques, formerly Minister of War, and at that moment attached to the Cabinet of the Minister of War.

"Having thoroughly inspected the defences of the Canadian Corps, he expressed himself as satisfied that every effort had been made to secure the Vimy Ridge against any surprise attack."

Such was the situation and condition of the Canadian Corps on the early morning of March 21st, when the Germans launched their mighty offensive against the fronts of the Fifth and Third British Armies from Arras to La Fere. Within twelve hours, units of the corps were on the move. When the attack commenced, the 3rd Canadian Division was holding the line in the Mericourt-Avion sections; the 4th Division held the Lens-St. Émile front; the 1st Division was in the line in the Hill 70 section; and the 2nd Division was at rest in the Auchel area. Three days later, the 3rd Division alone was holding the Acheville-Mericourt-Avion sections; the 4th Division, the Lens-St. Émile and Hill 70 sections; the 1st Division was in Army Reserve in the Château de la Haie area; and the 2nd Division was in General Headquarters Reserve in the Mont St. Eloi area. In other words, two divisions were holding what three had held and were covering seventeen thousand yards of front.

While these changes in the dispositions of the corps were proceeding, the greatest projector-gas bombardment in the course of the war was carried out by the Canadians on the night of March 22nd, against enemy positions between Lens and Hill 70. Sharply at eleven o'clock, a signal rocket gave notice of the zero hour. A moment later over five thousand drums of lethal gas were released from trench-mortar-line projectors into the German positions from the outskirts of Lens north to Cité St. Auguste and the Bois de Dix Huit. From the opposing front lines, favouring winds carried the poisonous clouds back upon the enemy's dug-outs, supports, and reserves. The whole front was lit up with enemy flares, dimly seen through a heavy mist, and our men in the line could hear the enemy's gas alarms and cries of distress. Nine minutes later, our field artillery, supported by our heavy guns and heavy trench mortars, opened a slow bombardment, increasing in intensity until forty minutes later enemy positions were swept with a short, intensive, creeping barrage which raked his forward and rear areas with high explosive. Caught by our gas without a moment's warning, caught again as he was emerging from his dug-outs by our artillery fire, the enemy casualties must have been very heavy. The effectiveness of our previous gas operations had been proved emphatically by the evidence of prisoners, and this one was three times greater than anything of its kind ever attempted by the Canadians.

The German reply to our attack came some five hours later, when they launched a raid in strength against our lines in the Hill 70 sector. Advancing under the protection of a heavy trench-mortar barrage, mixed with high-explosive and gas shells, the enemy attacked along the whole of an Eastern battalion front. Beaten off from one company sector, he succeeded in gaining a footing on another company front. He did not hold his advantage for long. Attacking

the Germans with bombs, bayonets, and revolvers, our men drove them in disorder from the trench. They left sixteen dead behind them and in their flight across No Man's Land they were caught in an artillery barrage which caused them further appreciable losses.

During this same night and morning, the 1st Canadian Motor Machine-Gun Brigade, under orders from British G.H.Q., was withdrawn from the corps area and ordered south to the Fifth Army area. They left at 5.30 a.m. on the 23rd. By midnight all batteries were in action on a thirty-five-mile front east of Amiens, having travelled over one hundred miles during the day. For the next nineteen days, the unit was constantly fighting rearguard actions to delay the enemy's advance or filling in dangerous gaps on the fronts of the Third and Fifth Armies. "For nineteen days," says General Currie, in his Interim Report for the year, "the unit was continuously in action north and south of the Somme, fighting against overwhelming odds. Using to the utmost its great mobility, it fought over two hundred square miles of territory. It is difficult to appraise to its correct extent the influence, material and *moral,* that the forty machine guns of that unit had in the events which were then taking place. The losses suffered amounted to about seventy-five per cent. of the trench strength of the unit, and to keep it in being throughout that fighting, I authorized its reinforcement by personnel of the infantry branch of the Canadian Machine-Gun Corps." The heroic gallantry of that little unit is detailed elsewhere in these volumes.[1] Its activities were followed with the greatest interest by the whole corps, though, for the first few days of its operations, the corps had little time to follow the individual movements of scattered units. It was too busy moving itself.

The Canadians were in demand. Their old com-

[1] See Vol. IV, p. 298 et seq.

mander, General Byng, needed them badly. He got two divisions. On the 27th at 4.05 p.m., the 1st Canadian Division was ordered to move to the Couturelle area, as far south as the roads went through Aubigny, Avesnes-le-Comte, and Sombrin. But at dawn on March 28th, the enemy struck heavily astride the river Scarpe and they were ordered hastily to retain their buses and to move back to the Arras-Dainville area. At that time, the 2nd Canadian Division passed under orders of the Sixth (Imperial) Corps and moved forward to support the 3rd (Imperial) Division of the Third Army in the Neuville Vitasse sector. It took its place in the line on the night of March 29th-30th and for the next ninety-two days it held a front extending from the south of the Cojeul river, east of Boisleux St. Marc, to the southern slopes of Telegraph Hill, a total length of about six thousand yards. On the same night the 1st Division went into the line immediately north of the 2nd Division, the 3rd Canadian Brigade relieving the 46th Brigade of the 15th (Imperial) Division, Seventeenth Corps, in the Telegraph Hill sector. North of the Scarpe, the 3rd Canadian Division had come under command of the Thirteenth Corps, First Army, and was holding the Acheville-Mericourt-Avion sections, and the 4th Division, under the same command, was in the Lens-St. Émile-Hill 70 sector.

When the Germans launched their attack astride the Scarpe, General Currie had no command. He was not long without one. North of the river, the German offensive extended almost to the right flank of the 3rd Canadian Division, where the battle-scarred 56th (Imperial) Division was heavily engaged. The attack was renewed in the afternoon, but after hours of fighting the Germans only succeeded in winning the British outpost line. The 56th Division, however, had suffered heavily in its vigorous defensive. German prisoners were insistent that the attack would be renewed

again the next morning by storm troops which had been held in reserve for the purpose of capturing Vimy Ridge by attacking it from the south. Under this menace of attack, the 4th Canadian Division was moved in a night from its positions north of the Souchez to the 56th Division front, and by 6.45 a.m. on the 30th the command of the Thirteenth (Imperial) Corps front passed back to General Currie, who had the 3rd and 4th Divisions again under his control.

It is difficult to follow all these changes even in such brief review. Imagine how difficult it was to execute them. They were stirring days. Take the 4th Canadian Division, for instance. At daybreak one morning, it was defending the left flank of Vimy Ridge; before midnight its infantry were stumbling in the dark into strange trenches which but a day before had been the scene of the desperate defensive of the 56th (Imperial) Division. With the infantry came the gunners and engineers and men of all units and all formations that completed the divisional strength. Roads and routes that had known only occasional traffic were jammed with marching men; with guns and ammunition limbers; with field ambulances; with horse and mechanical transport; with motors and lorries and General Service wagons until the roadsides were white with dust and the countryside resounded with the shouts of men — infantry jostling artillery and mechanical transport threading its way through both, while staff cars wound in some miraculous way through the turmoil which was order, only outwardly cloaked in seeming confusion. And with all this on the roads, there were buses crammed with infantry. Other troops went forward by the light railways and tramways. The area about Vimy was alive as it had not been for months. Battalion headquarters moved in the morning to find themselves in strange quarters at night. Brigade headquarters followed them. The divisional staff reached its permanent destination in

the morning and by night Major-General Watson and selected officers were miles further forward in battle headquarters. In previous days, the 1st and 2nd Divisions had hurried south, where General Byng's glorious Third Army was fighting night and day in one of the most desperate battles of all history. On strange roads and in strange places, troops had marched or been hurried forward in scores and scores of buses or they had crawled by train over burdened railways to constantly changing destinations. Trench fighting had given place for the moment to what approached open warfare. Men had billeted where they could in farmhouses and outbuildings, in camps, and in the open. One division had changed its headquarters three times in one day. Brigades had changed as often. Bewildered battalions with tired officers and tired men had seemingly been thrown from place to place at the whim of higher commands. But bewildered as they were and tired as they were, Canadian officers and men, both north and south of the Scarpe, were eager for the battle; eager for a struggle from which all indications were that many would not return. There was business to be done — the business that had brought fathers and sons out to France for the doing of it — and the cause was greater than the individual. Men moved by night and day with their "tails in the air," as the expression goes, which means that the Canadian Corps was confident of itself, that its *moral* was high, that all ranks welcomed days of action after days of quiet, and, putting away the petty things of routine, turned to the vital things of combat, sure in their record of the past and in no way alarmed for the future. They had no illusions concerning what might be in store for them. On March 27th, General Currie had issued a special order to the corps, an order which should rank among the great documents of Canadian history, and which read: —

"In an endeavour to reach an immediate decision

the enemy has gathered all his forces and struck a mighty blow at the British army. Overwhelmed by sheer weight of numbers the British divisions in the line between the Scarpe and the Oise have fallen back fighting hard, steady, and undismayed.

"Measures have been taken successfully to meet this German onslaught. The French have gathered a powerful army, commanded by a most able and trusted leader, and this army is now moving swiftly to our help. Fresh British divisions are being thrown in. The Canadians are soon to be engaged. Our Motor Machine-Gun Brigade has already played a most gallant part and once again covered itself with glory.

"Looking back with pride on the unbroken record of your glorious achievements, asking you to realize that to-day the fate of the British Empire hangs in the balance, I place my trust in the Canadian Corps, knowing that where Canadians are engaged there can be no giving way.

"Under the orders of your devoted officers in the coming battle you will advance or fall where you stand facing the enemy.

"To those who will fall I say, 'You will not die, but step into immortality. Your mothers will not lament your fate, but will be proud to have borne such sons. Your name will be revered forever and ever by your grateful country and God will take you unto Himself.'

"Canadians, in this fateful hour, I command you and I trust you to fight as you have ever fought, with all your strength, with all your determination, with all your tranquil courage. On many a hard-fought field of battle you have overcome this enemy. With God's help you shall achieve victory once more."

With all their "tranquil courage," the Canadians had marched to their new positions as they had marched along the dusty highways of France — through wrecked villages that once had been the homes

of men and women and children and were now but masses of ruins, some of them indeed only marked by a cross-roads and mounds of debris; or through other villages, almost untouched by war, where the children of France came to stare at their guns and the women to cheer them on. And as they had marched forward to battle they had sung and the songs of their singing had often been "Tipperary," or the "Long, Long Trail," but more often a rollicksome song whose refrain was Good-by-y-y-e-e— long drawn out and intensive. Or again, thinking of those at home, they had hummed "Auld Lang Syne" and "My Ain Folk." Whatever the song, the spirit that prompted it had been one of high courage, and those who had sung had preferred to hide the greatness of their spirits under words that cloaked convictions than to expose to their comrades the intensity of the faith that had brought them overseas and sustained them in long and arduous days. So they had sung and their bands had gone before them. And those who had trekked south had passed over ground which had known the feet of Australia and New Zealand but a short time before.

The 1st Canadian Division was more than half-way to Doullens before it turned back towards the Scarpe. Had its forces gone further, they would have mixed with tumultuous traffic. For Doullens, next to Amiens, was the personification of war behind the line. The enemy was within short miles of Amiens — short miles that he could not gain because of the guns and the men that intervened. But Amiens was feeling the war as it had not since the beginning. By day it was shelled. By night it was bombed. For months before, it had been alive with British troops. Then with the first impact of the battle, those troops had been rushed forward to meet the brunt of the attack. For a moment, Amiens was almost entirely French, a place of quiet streets, with open shops and cafés, sun and life

and peace. Then stragglers began to come in with their stories of companies exterminated to the last man, of gunners killed at their guns. The tragedy of the war overcame the brightness of the sun. The quiet streets seemed unreal and the open shops a fantasy. Then had come shells and bombs by night and by day until the civilians were evacuating the city in hundreds and ruin was slowly spreading everywhere. At Doullens, the tide of refugees combined with the tide of troops to jam every thoroughfare. Here, too, civilians were leaving for the base. And so, also, to a lesser degree, were the inhabitants of St. Pol and other considerable centres. The roads were crowded with troops and transports and through the military congestion moved slow-plodding animals, dragging peasants' carts, heavily loaded with home effects. By their sides trudged man and wife and child. Sorrowful but courageous, homeless but defiant, France was suffering another tragedy. Humble homes lay in ruins from bombs and shells. Tired women and children, with tear-stained faces, but with courage in their eyes, were leaving their little places in the sun. All around them was war. Here a new battalion swung along a highway. Here the remnants of a stricken regiment trudged slowly back to rest. Their faces and their clothes were caked in dust. Their eyes were tired. They looked old. Some of them limped as they walked. Others had heads and arms bandaged. But they cheered those who passed to the battle and those who passed cheered them, giving such due as men give to those who have fought gloriously.

As the civilian population were moving back, thousands of clamouring men at great base ports were striving to get forward. Officers hastily recalled from leave pleaded with R.T.O.'s and with heads of mechanical transport centres — with all possessors of things that went by rail or by road, by steam, by petrol, or by horse-power — for assistance to reach

A HIGH-EXPLOSIVE SHELL BURSTING IN AMIENS

CANARIES RESCUED FROM RUINS IN AMIENS

Canadian Official Photographs

their headquarters, that they might not be missing when their units advanced to the battle. Some got up to the war zone by train; others came by carts; others stole rides on lorries; others walked and begged lifts in passing motor cars; others did all five. But Canadians, Australians, Englishmen, Scotchmen, Irishmen, and all the other men that made the British army in France, reached their headquarters by some manœuvre and, hating heroics, made light of it all, complaining only that a misguided enemy had selfishly interfered with their leave.

While these men were struggling, and struggling successfully, to get up to the front, the Canadians in the battle zone were reconnoitring strange No Man's Lands and making themselves as comfortable as they could in new trenches and strange billets. They seemed to have a particular fancy for caves. The 4th Canadian Division's battle headquarters was located in the famous Aux Rietz Cave. In this case, the cave entrance was only wide enough to admit two men at a time. It led to a flight of earthen steps that went down thirty feet, and, turning sharply to the right, descended another thirty feet. Sixty feet from the sun, the narrow entrance gave place to a succession of caves that would have sheltered a battalion. There was neither light nor food, bedding nor heat, when General Watson first arrived there with his staff. But carpenters and engineers and sweating aides worked all night and all the next day until the caves were partitioned off into offices and messes and kitchens and billets. In two days the floor of the cave was boarded. In three, it was a headquarters fit for any regiment in time of battle. By day, it was easy of approach, but by night there was need for caution. For officers went armed, sentries were on the alert, and men were never far from their rifles. There were many stories of German spies filtering through the lines of the struggling British forces to the south and beyond these

lesser possibilities there was the imminent danger of attack against the ridge.

Large as the cave was at Aux Rietz, it was nothing to those around Arras. The 3rd Brigade of the 1st Division, when it was in support just outside of the city, was to be found in a series of vaults which stretched for hundreds of yards underground. There were thousands of men in it. The huge galleries had only flickering candles to relieve the gloom. After twenty-four hours of such a camping place, clothing was wet with moisture from the roof and floor, and yet men lived and slept and ate for days in this giant hole under the ground. Outside, the earth was marred and pitted with shell holes. Shells " crumped " overhead intermittently, shaking the walls, and bringing the sides of the cave down in muddy lumps with each shock. It was a dirty life, but a hole in the ground was often a gift from the gods in these days and conditions for those in " support " were " jake " compared with the circumstances of men in the advanced areas, where gas and shell and high explosive made life little more than a constant hell.

North and south of the Scarpe, a week had transformed the front for the Canadian Corps. " Soccer " and tennis and baseball and badminton were things of the past. Players in divisional concert parties who had been striving with one another to produce the best thing on the western front were now digging trenches, the " lovelies " no longer camouflaged women, but hard-bitten " birds " of the line or the support or the reserve. There was no time now for the little restaurants and cafés where officers and men had made merry. Now " G," and " A " and " Q," and " I " had the battle in hand. There were a million things to be done, with little time for the doing. Otherwise men would go hungry or thirsty, or guns would be wanting for ammunition, or lives would be sacrificed. A week before, one could have stood upon

Canadian Official Photograph

GENERAL PERSHING AT THE CANADIAN FRONT

the ridge with comparative safety; now it was under constant fire, and the nights and days were noisy with the shrieking and bursting of shells.

As Easter Monday a year before had found the Canadians moving mightily to attack Vimy Ridge, so this Easter Sunday found them charged with its defence. The threatened German attack on the old 56th (Imperial) Division front now held by the 4th Canadian Division never developed. Enemy preparations on the morning of March 30th to renew the offensive were effectually overcome by the massed fire of our artillery. At 3.45, at 4.30, and again at 5 o'clock, the southern flank of Vimy Ridge, stretching out towards Arras, was alive with fire from our guns, which rained shells on the enemy's front lines, communication trenches, and assembly areas. Our Stokes guns were directed chiefly upon hostile communications, our machine guns maintained a hail of fire across No Man's Land and upon the enemy's front line, while our light and heavy artillery kept up a constant harassing fire for two hours, increasing to battle barrage at the times stated, when every gun was firing shell upon shell as fast as the gunners could feed them to the cannon. Under such concentration of fire, the German attack never developed. Again on Monday morning, our guns, heavy and light, smashed up the enemy's communications, supports, and assembly areas, while machine guns and heavy and light trench mortars added their fire to the programme which gave the foe further grim notice of our readiness to meet his offensive operations.

During these days both the German concentration of infantry and weight of artillery indicated a renewal of the offensive at any time. The situation was critical. Owing to the operations astride the Scarpe on the night of March 28th-29th, the front-line system had been abandoned under orders of the Thirteenth Corps and the troops withdrawn to the Blue Line in

front of the Bailleul-Willerval-Chaudière-Hirondelle Line, as far north as the Mericourt sector.

"This Blue Line," says General Currie, in his Interim Report of the year's operations, "was originally sited and constructed as an intermediate position, and consisted in most parts of a single trench too plentifully supplied with dug-outs. This meant that until a support line was dug and made continuous the troops had to be kept in strength in the front line, subject to heavy casualties from hostile shelling and to probable annihilation in case of an organized attack.

"Any advance beyond the Blue Line on the 4th Canadian Division front would have brought the Germans within assaulting distance of the weakest part of the Vimy Ridge, and the severity of the shelling seemed to indicate that a renewal of their attacks was probable.

"I therefore directed that every effort should be made to give more depth to our new front-line system by pushing forward a line of outposts and by digging a continuous support line, as well as by constructing reserve lines at certain points of greater tactical importance. Switch lines facing south were also sited and dug or improved.

"Every available man was mustered for this vital work, and the need of properly organized Engineer Services was very keenly felt.

"To increase the depth of our defences, machine-gun detachments were extemporized by borrowing men from the machine-gun battalions, who had then completed their organization on an eight-battery basis. Some fifty extra machine guns were secured from Ordnance and other sources, and also a number of extra Lewis guns.

"Personnel from the Canadian Light Horse and the Canadian Corps Cyclist Battalion were organized in Lewis and Hotchkiss gun detachments and sent

forward to man the defences in Vimy and Willerval localities, under orders of the 3rd and 4th Canadian Divisions."

The machine-gun companies of the 5th Canadian Division had also arrived in France on March 25th and were now holding definite defensive positions on Vimy Ridge.

On the night of the 7th-8th of April, the 1st Canadian Division again came under General Currie's command. They relieved the 4th (Imperial) Division astride the Scarpe, the army boundaries being altered so that the First Army front included the sector taken over by the 1st Division. The front held by the corps was now approximately sixteen thousand yards in length, extending roughly from the Scarpe to the Souchez, and not including the six thousand yards held by the 2nd Division under the Sixth Corps, Third Army.

Hardly had the 1st Division taken over its new positions when a strong enemy raiding party, seeking identifications, attacked south of the Scarpe. It was mowed down by our rifle and machine-gun fire and repulsed with heavy losses. In no case did any of the enemy succeed in getting past our outpost line. The first raid, which was directed against our positions north of Telegraph Hill, was preceded by a heavy enemy bombardment of over two hours' duration, in which all calibres were employed against our front and support lines. Just before he attacked, the enemy added a heavy *minenwerfer* barrage to his artillery fire. Then a hostile party, over one hundred strong, advanced against our lines. It was immediately caught by our rifle and machine-gun fire and broken up. The raiders, reorganizing in shell holes, attempted to carry on the attack in scattered groups, but these were easily dispersed before any had come within one hundred and fifty yards of our line. Over thirty per cent. of the raiders never returned to their trenches.

On April 9th, the anniversary of the taking of Vimy Ridge, the Germans, foiled in the south, attacked on the Lys front between La Bassée and Armentières. In the attack there was a threat to Bethune and the north flank of the ridge, and the German artillery was active all along the Canadian front from the Scarpe to the Souchez. During the whole night of April 8th and all the next day and night, our guns thundered in reply to the Boche. War brooded over the ridge. From Lens to Arras, ruin was added to ruin. Smoky by day, rimmed in fire by night, the old fighting grounds were again alive to the battle. The constant crumping of shells in Arras, Liévin, Acq, Ecoivres, and other big and little centres was answered by the roar of our guns carrying destruction to the enemy's forward and rear zones. Under cover of a mist, the Germans raided our lines again in the vicinity of the Scarpe. Their initial attack carried them into our front trenches. With six prisoners, they commenced to retire, having identified the presence of Canadians in front of Arras. As they retired, our infantry, in a brilliant little counter-attack, rescued their own men and drove the enemy back to their trenches in confusion, capturing seven prisoners and a machine gun. In the next twenty-four hours, five raids were carried out by the Canadians in various parts of the line.

In the meantime, further changes in the corps front were being planned. While the Canadians were not directly involved in the Lys battle, the drain upon the British forces to meet this menace to the north made it imperative that additional troops should be supplied. Under orders from the First Army, the 46th (Imperial) Division, holding the Lens-St. Émile-Hill 70 sector, were commanded to take part in the battle, and they were withdrawn from the Vimy front on April 13th, when the 3rd Canadian Division took over their line. At the same time, the fronts of the other

Canadian divisions were readjusted and the Canadian Corps was in occupation of no less than twenty-nine thousand yards of line, held by three divisions, and extending from Hill 70 to the Scarpe. Theirs was a task of vast responsibility. The Germans had failed in their major part of destroying the British army. They had failed to take Amiens or to divide the British and French forces. By capturing the coal-fields of the North, they could still largely paralyze the offensive and defensive power of France. And Canada was defending this ridge with three divisions. The tremendous length of the line made it impossible to hold it in any great strength or depth; and as a result of the German advances to the north and south, the corps found itself in a deep salient, open to attack from the flanks. To deceive the enemy, the corps adopted a very aggressive attitude, constantly harassing the enemy's forward and rear areas, raiding his lines, and employing gas extensively. At the same time, steps were taken to strengthen the Canadian forces. The situation was critical.

"The success of the German offensives," says General Currie, "emphasized the need of greater depth for defensive dispositions, which depend very largely on the stopping power of the machine gun. Unfortunately the number of machine guns with a division was inadequate to give the required depth of defence on a front exceeding four thousand yards in length. Each of my divisions was now holding a front approximately ten thousand yards in length, and the extemporized machine-gun detachments formed previously, added to the machine-gun companies of the 5th Canadian Division, in my opinion were far from sufficient for the task.

"I decided, therefore, to add a third company of four batteries to each battalion of the C.M.G. Corps, thus bringing up to ninety-six the number of machine guns in each Canadian division. This entailed an in-

crease in personnel of approximately fifty per cent. of the strength of each machine-gun battalion.

"These companies were formed provisionally on April 12th by withdrawing fifty men from each infantry battalion. Of these men a portion was sent to the machine-gun battalion to be combined with the trained personnel, so that each machine-gun crew would include at least four trained gunners. The remainder of the infantry personnel, withdrawn as above stated, was sent to a special machine-gun depôt, formed for the purpose, and there underwent an abridged but intensive course of training. Thus an immediate supply of reinforcements was ensured. Twenty three-ton lorries had been borrowed from General Headquarters to supply a modicum of transport to the new units, and on April 13th some of the new machine-gun batteries were already in the line at critical points."

These drains upon the infantry battalions left insufficient men to garrison the local defences of Vimy Ridge or to reinforce parts of the front if the enemy were successful in effecting a deep penetration. The engineers were called upon and two special brigades were organized as follows: —

The Hughes Brigade. — Commanded by Lieut.-Colonel H. T. Hughes and composed of: —

"A" Battalion — 185th, 176th, 250th Tunnelling Companies, R.E., and 2nd, 4th, and 5th Army Troops Companies, C.E.

"B" Battalion — 1st Canadian Divisional Wing.

"C" Battalion — 4th Canadian Divisional Wing.

Approximate strength — officers, 184; other ranks, 4,050.

McPhail's Brigade. — Commanded by Lieut.-Colonel A. McPhail and composed of: —

"D" Battalion — 5th Canadian Division Engineers, Pioneer Reinforcements, 1st Tunnelling

Company, C.E., and Third Army Troops Company, C.E.
"E" Battalion — 2nd Canadian Divisional Wing.
"F" Battalion — 3rd Canadian Divisional Wing.
Approximate strength — officers, 148; other ranks, 4,628.

In addition to these measures, each division organized its own "last resort" reserves, using the personnel of infantry battalions left at transport lines, transport personnel, and the personnel of its divisional headquarters. All these units had some measure of training. Every man that could fight was called upon. Detachments of tanks were secured to further strengthen the defence. The 11th Tank Battalion, with twenty-four tanks, was placed at the disposal of the corps, with officers and drivers and armament. The corps supplied the gunners and the tanks were distributed at critical points throughout the area, as follows: —

18 tanks behind the St. Catherine switch at intervals of about 300 yards, facing south;
3 tanks in the gap between the Souchez river and Bois-en-Hache, facing east;
3 tanks on the ridge behind Angres, facing east.

The tanks were intended to form points of resistance in case of a successful enemy offensive and were under instructions to remain in action for twelve hours after coming in contact with the enemy, thus gaining time that would be vital in a crisis. The 1st Canadian Motor Machine-Gun Brigade, back from the Amiens battle, was held as a mobile reserve at one hour's notice. Complete preparations were made for blowing up bridges, railways, roads, and pumping stations in case of necessity. "Every contingency," General Currie reports, "was prepared for down to the minut-

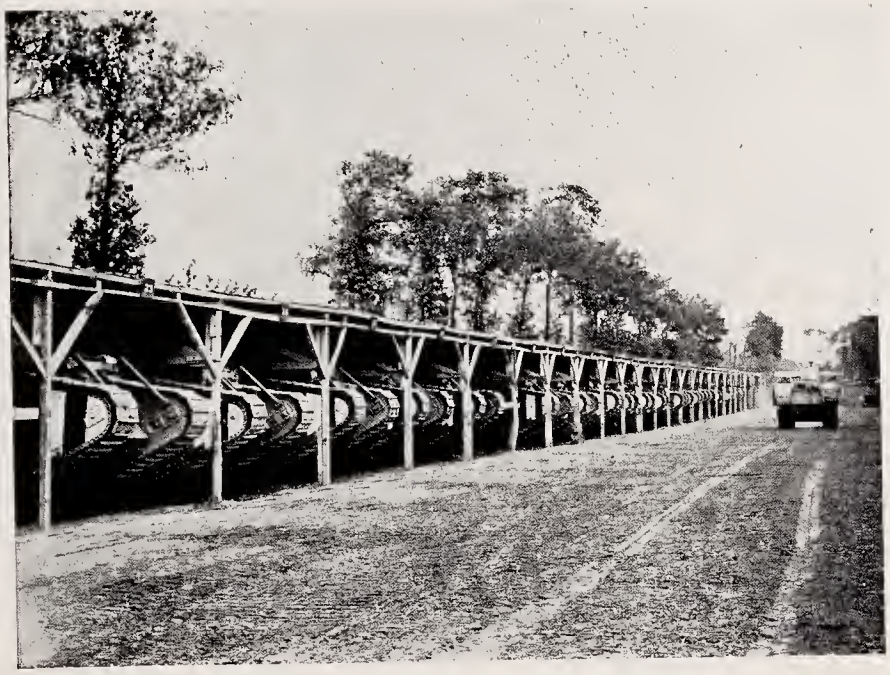
est detail, and nothing could be more inspiring than to witness the extraordinary spirit displayed by everybody in their untiring labour and ceaseless vigilance.

"Extended almost to the breaking point, in danger of being annihilated by overwhelming attacks, the corps confidently awaited the assault. All ranks of the corps were unanimous in their ardent resolve to hold to the last every inch of the ground entrusted to their keeping.

"It was for them a matter of great pride that their front was substantially the only part of the British line which had not budged, and one and all felt that it could not budge so long as they were alive."

It did not. The Germans never dared a frontal attack on the ridge and were never able to move successfully against it on the flanks.

Following their aggressive policy of artillery, raiding, and gas activity, the Canadians on the night of April 20th carried out on a vast scale a combined projector-gas and gas-shell bombardment. For hours our heavies and howitzers poured shells upon hostile battery positions, using lethal gas and lachrymatory gas, mixed with high explosive. Then at two o'clock on the morning of April 21st, over twelve hundred drums of lethal gas were projected against the enemy trenches and supports in an intensive, concentrated bombardment of the Lens area immediately north of the city. Altogether over nine thousand shells were used in the artillery bombardment against hostile positions at Rouvroy, Bois Bernard, and other chief centres of enemy artillery activity. For hours shoot followed shoot, intensive bursts of lethal gas being followed by prolonged and deliberate lachrymatory gas-shelling. Bombardment succeeded bombardment at greater and lesser intervals in a scientific, carefully thought-out programme of destruction designed to silence enemy guns and kill the crews or at least make



TANKS IN THEIR STABLES

BACK FROM BATTLE ON A TANK

Canadian Official Photographs

operation of the batteries impossible for some time. To add to the liveliness of the night, our trench mortars and machine guns maintained a steady, harassing fire. The next evening, the Germans fared equally badly. They replied to our gas-shelling by projecting sixteen hundred drums of tear gas against our positions north of Lens, but our infantry raided their lines in seven places and were supported in their activities by more continued, calculated gas-shelling and more concentrated artillery barrages. This policy was maintained night after night until the Canadians possessed No Man's Land. It culminated in a series of raids at the end of the month which marked the busiest period the corps had ever known in its history outside of actual battle operations. In forty-eight hours we carried out nine raids, capturing fifty-six prisoners, seven machine guns, and one *granatenwerfer*. From Hill 70 to near the Scarpe, between Friday at midnight and Sunday at midnight, the hostile lines were pierced again and again by our infantry, who gave the enemy literally no rest from dusk until dawn. Regiments from British Columbia, Manitoba, Central and Eastern Ontario, and Quebec all took part in the operations, one British Columbia regiment making two raids during the period and establishing the splendid record of four raids during one tour in the line.

Outstanding amongst the raids in the number of prisoners taken, though not in the hard nature of the fighting or the difficulties of attack, were the combined operations of Quebec and Manitoba regiments on Sunday morning, when strong raiding parties attacked the enemy positions south of Gavrelle. Fifty-four prisoners were taken, including a company commander and a forward artillery observation officer. Three machine guns were destroyed, five enemy dugouts were blown in, one of them known to contain twelve men, and twenty enemy dead were counted in the trenches before our men withdrew. In addition to

being a splendid infantry success, the raid was a triumph for our artillery. Our men advanced under the protection of a concentrated barrage from our heavies, field-guns, trench mortars, and machine guns. Their fire was so effective that the enemy artillery telephone communications were cut. A heavy mist prevented any kind of observation. The result was that the German artillery was entirely out of touch with its infantry in the line and our men crossed No Man's Land practically without encountering any enemy shelling. The foe was caught napping. For three nights, the Germans had been standing to, anticipating an attack; but they had relaxed their vigilance, and the surprise was complete. Having thoroughly studied the enemy trenches by means of British maps, our men raided on familiar ground. The Germans, unprepared and denied support from their artillery, ran for cover to their dug-outs or surrendered with only scattered attempts at resistance. Our able counter-battery work was another valuable factor in the success, many hostile batteries being silenced or neutralized. Our infantry counted twenty German dead before they withdrew. From information given by prisoners, twelve more were thought to have been killed in one dug-out, and many others must have met death in similar retreats. Our casualties were very light.

The general raiding operations began on Friday night, when an officer and thirty-seven other ranks from a British Columbia regiment, under cover of an artillery, trench-mortar, and machine-gun barrage, entered the German lines in the Hill 70 sector. The enemy offered a stout resistance and no prisoners were taken here. Our men counted eleven German dead before they withdrew. Shoulder straps were secured for identification. About the same time an Eastern Ontario regiment, in the vicinity of Arleux, was conducting another gallant operation. Here the

Canadians, finding the enemy's wire intact, cut it under heavy machine-gun and rifle fire and pushed forward their attack. The German garrison finally abandoned their trench line and sought greater security in their dug-outs. The Canadians took possession and, using prepared mobile charges, destroyed six of the dug-outs with their occupants. Then they withdrew, having secured the desired identification. At three o'clock on Saturday morning in Lens itself an officer and twenty men of a Manitoba regiment, with a covering party of three-quarters their strength, stole up to the German line without any artillery preparation to give notice of the attack, captured two prisoners, and before withdrawing counted fourteen German dead. Further south at Mericourt, twenty-eight men and an officer of a British Columbia battalion cut two belts of German wire by hand and gained admittance to the enemy line. So much time had been lost, however, that approaching daylight forced them to retire. Two scouts, none the less, went forward to reconnoitre the German positions, crawling through a double series of wire defences to do so. To crown a night of splendid activity, an officer and thirty other ranks of a Manitoba regiment carried out a completely successful operation south of Arleux, though the German wire had first to be cut by hand and blown up by ammonal tubes. That done, the raiders pushed forward and gained all their objectives, fighting their way with bayonets and bombs to the desired positions in the German trenches where blocks were established. The attack was made under a heavy enemy barrage which came down shortly after the raid was launched. In the face of intense artillery fire, an enemy machine-gun crew was rushed, five of the crew killed, and the gun captured. During the trench fighting, one section of the raiding party located another machine gun which was harassing our men on their left flank. The gun could not be reached owing to heavy rifle-fire, but

the position was bombed and the gun put out of action. Finally, a reinforcing party of thirty Germans was repulsed and our men withdrew, evacuating their wounded, only four altogether, under heavy fire. A feature of this gallant little operation was the conduct of the officer commanding the party, who "carried on" during the whole raid, though suffering from four wounds.

The seventh raid took place at three o'clock on Sunday morning in the vicinity of Mericourt. Two officers and twenty-eight other ranks rushed an enemy post, the garrison retreating before our bombing and rifle-fire until daylight prevented further pursuit. On Sunday night again, after twenty minutes of intense fire from our heavies, field-guns, and trench mortars against hostile trench junctions and approaches, men from a Central Ontario regiment succeeded in passing through the German wire and reaching their objectives in the vicinity of Acheville, but the foe, evacuating the trench, launched a counter-attack, supported by liquid fire and machine guns. Despite the vigour of the onslaught, our men did not withdraw until they were satisfied that identification could not be secured. Then they retired, taking their wounded with them. Finally, two officers and thirty other ranks of the British Columbia regiment which had already raided the enemy in the Mericourt sector repeated the performance.

Such was the temper of the Canadians who held Vimy Ridge for France during the spring campaign of 1918. It was not their fate to be directly engaged in the desperate battles of that campaign; but from April 10th until they were relieved by the 15th, 51st, 52nd, 20th, and 24th (Imperial) Divisions, the 1st, 3rd, and 4th Canadian Divisions held a line exceeding 29,000 yards in length, practically a 10,000-yard frontage for each division. At the same time the 2nd Canadian Division was holding 6,000 yards of front on the

Neuville Vitasse sector, making a total of 35,000 yards of front for four Canadian divisions.

Well might Sir Arthur Currie conclude his report of this period with the following sentences: —

" The total length of the line held by the British Army between the Oise and the sea was approximately one hundred miles, therefore the Canadian troops were holding approximately one-fifth of the total front.

" Without wishing to draw from this fact any exaggerated conclusion, it is pointed out that although the Canadian Corps did not, during this period, have to repulse any German attacks on its front, it nevertheless played a part worthy of its strength during that period."

CHAPTER IV

LAST DAYS OF THE VIMY FRONT

AT rest at last! For the first time in its history, the Canadian Corps "ceased to function" in its official capacity on May 7th, and for two months it was out of the line, though during all that time one of the divisions was in the line south of the Scarpe. General Byng had the 2nd Canadian Division under the Sixth (Imperial) Corps in the Neuville Vitasse sector; and it was not until July 1st that General Currie succeeded in getting it back again, and then only on the condition that it was replaced by the 3rd Canadian Division. When it was finally relieved, it left the trenches with a splendid record. It had held its front for ninety-two days, during which time it repulsed a series of local attacks, carried out twenty-seven raids, captured three officers, one hundred and one other ranks, twenty-two machine guns, and two trench mortars, and inflicted severe casualties on the enemy. "The aggressive attitude adopted by this division at such a critical time and under such adverse conditions," General Currie declares in his official report, "had a most excellent effect on our troops, and it certainly reduced to the lowest point the fighting value of two German divisions, namely, the 26th Reserve Division and the 185th Division."

Indeed, the Germans in front of the 2nd Division had little rest. One of their earliest experiences of the mettle of the troops opposite them was on the morning of April 8th, when two of their raiding parties endeavoured to penetrate the Canadian positions. The 2nd Division was holding some six thousand

yards of front from south of the Cojeul river, east of Boisleux St. Marc to the southern slope of Telegraph Hill. The line skirted Neuville Vitasse, which was largely German, and ran in front of Mercatel and Boisleux St. Marc, both of the latter being Canadian. The two raids were directed against our positions around Neuville Vitasse, and were supported by heavy artillery barrages. The first, about forty strong, was driven off with heavy casualties, leaving ten dead in front of our posts. The second was of a more determined nature. The attack was launched in two waves. The first, one hundred strong, was met by our men with rifle and machine-gun fire, deferred until the attackers were within close enough range to ensure good execution. The reception was so hot that the attackers, armed only with bombs, were thrown into confusion. Reinforced by a covering party of fifty, they endeavoured to continue the attack, but they were again overwhelmed by our fire, and retired in great disorder, leaving thirty bodies in front of our wire. As a slight return for this morning attention, one of our bombing parties proceeded against a German post in the afternoon, bombed it, killing the entire garrison of ten, and then advanced another seventy-five yards until they encountered a hostile party of over double their strength. In the fight that followed they sustained a few casualties, but they returned confident that they had inflicted many more upon the enemy.

It would take much space to detail the many activities on this front. The 19th Battalion, upon occasion, came to the assistance of the "Liverpool Lads," who were holding their right flank and whose line had been pierced to some depth by a hostile party. An officer of the 19th Battalion organized a counter-attack upon his own initiative and cleared half the trench that had been taken, while the "Liverpool Lads," operating from the other flank, swept the Germans out of the positions in disorder. Later, when the Germans

attacked in some force, the Canadian artillery, rifle, and machine-gun fire was very effective in dispersing the enemy. One battalion raided the enemy lines five times in one week without suffering a casualty. A sergeant in another regiment, working his way alone to the German position, found thirteen of the foe asleep beside a machine gun. He crept up to the post, captured the gun, returned with it to our lines and, organizing an offensive party, went back to secure some prisoners. But the attackers found the enemy on the alert and the garrison strongly reinforced. In another daring incursion, a lieutenant and five other ranks, despite the presence in the near distance of a large hostile working party, crept along a trench until they encountered a German machine-gun crew, killed the crew, captured the machine gun, and returned triumphant. In the same manner another lieutenant with six men charged a large working party with the bayonet, drove the Germans into a trench, bombed them as they were huddled together in confusion, and then withdrew with only three slight casualties, all sustained from machine-gun fire during the withdrawal. These incidents give some indication of the individual fighting temper of our men. Singly, in small parties, or in large groups, they were constantly on the alert and always aggressive.

In a highly successful raid in the first week in May, Saskatchewan troops, under cover of an artillery and machine-gun barrage, penetrated the enemy's outpost lines on the Arras road, north of the Cojeul river, to a depth of four hundred yards on a frontage of six hundred yards. The raid was conducted at slight loss to ourselves, but both sides of the road were marked with German dead and their casualties were estimated at at least one hundred. In addition, our men captured seven prisoners and four machine guns. On the right of our attack, the Germans offered only a feeble resistance, but on the left there was some severe

hand-to-hand fighting. After a sharp resistance, the enemy broke, and running back were caught by our artillery barrage and likewise paid toll to our snipers. In another brisk encounter, Central and Eastern Ontario regiments raided the foe in the outskirts of Neuville Vitasse, capturing ten prisoners and four machine guns. At three o'clock on the morning of May 7th, another successful operation was carried out against the Neuville Vitasse defences by the 25th and 26th Battalions. The raid, which was pulled off in darkness lighted only by flares and over ground deep in mud from heavy rains, was disappointing in only one feature, the reluctance of the Germans to fight. While forces to our right and left provided artillery demonstration which increased the confusion of the enemy and distracted some of his men, our men under cover of an intense shrapnel barrage from our field artillery, supported by our heavies, Stokes, and machine guns, advanced against the enemy outpost line in seven parties. Save in only a few instances, the enemy retired from their advanced line. As our shrapnel barrage gave place to a box barrage around the German positions, our men slowly and surely stumbled over the ragged ground. The 25th Battalion met with little opposition, save at one post, manned by twenty Germans, who put up a strong fight with stick bombs before they were disposed of by Mills bombs. One machine-gun post, with a garrison of three, was rushed by one Canadian, who bayoneted two of the enemy, shot the third, and brought their gun back to our lines. The 26th Battalion had harder going. Near the Beaurains-Neuville Vitasse road, two garrisons offered stout resistance. All the defenders were killed and we captured an additional machine gun. Eight minutes after the launching of the attack our men withdrew, having secured requisite identifications.

Over two weeks, marked by constant artillery and patrol activities, passed before the 2nd Division con-

ducted any further outstanding operations. Then on May 22nd, they raided the enemy's lines at Neuville Vitasse and south of Mercatel. They found the Germans on the alert and in distinctly better *moral* than in recent operations. The major raid was directed against Neuville Vitasse by Alberta troops of the 31st Battalion, who attacked the enemy's lines in three places just after midnight. Trained over the tapes and familiar with the ground, our men, however, were handicapped by bright moonlight, and enemy machine-gun activity added further difficulties to an advance over naturally difficult ground. An observation post and a deep dug-out in front of the village were our main objectives. After a strongly-wired German trench had first been subjected to a destructive shoot from our howitzers, the Albertans went forward. Finding the wire successfully cut, they pressed on. On the right, the only serious opposition encountered was from a machine-gun post on the flank. A special party, detailed to put the gun out of action, encountered very strong wire and was held up for some moments in direct view of the garrison. The party, however, had advanced under the protection of a heavy rifle-grenade fire, which had evidently been successful in wrecking the gun, for the crew could be seen working desperately to repair it and get it into action. Before they could do so, our men broke through the wire and the garrison fled, abandoning the gun. In the vicinity of the main road of the village, the enemy offered a vigorous resistance from scattered posts, but the attackers succeeded in reaching their main objectives after shooting and bayoneting five of the foe. The dug-out, which was found to be used mainly as a bomb store, was deserted. The triumphant raiders emerged with a box of flares which they had mistaken for a box of cigars, but their subsequent disappointment was somewhat relieved by the destruction of the place. In the southwest portion of the village,

Canadian Official Photograph

M. CLEMENCEAU, FRENCH PRIME MINISTER, AT THE CANADIAN FRONT

the enemy fought well, sustaining many casualties. Two of our parties went along the main street, two more up the Beaurains-Hénin road, while a fifth advanced to a final objective further in the village. Enemy posts were rushed in hand-to-hand fighting in which five Germans were killed and two taken prisoner. Throughout the fighting on the Beaurains road not one German surrendered. Emerging from their dug-outs, they fought until shot or bayoneted. Further in the village, enemy hiding in the bottom of a trench, who refused to move or answer when challenged, were all shot save two who were taken prisoner. Another hostile party of twelve was wiped out by our machine-gun fire. One of our companies had offered a prize of ten francs for each prisoner captured. In the midst of the fighting a private, rushing back to one of our positions and pitching a prisoner over a barrier, where our guards received him, shouted: "My name is Michael. The ten francs is mine." Then Michael returned to the fray. In a dispute over a prisoner the difficulty was settled by the death of the German from a stray machine-gun bullet. An outstanding feature of the raid was the performance of one of our machine gunners, who was attacked by three Germans. Though wounded in the face and held by one arm, he shot all three with his revolver. But the German opposition was becoming very marked, and the whole village was swarming with their forces. Our men therefore withdrew, and, though under pronounced machine-gun fire, succeeded in evacuating all their wounded. Much of the success of this whole performance was due to the excellent artillery and machine-gun support, and the valuable work done throughout by the sappers.

Three hours later, Nova Scotia troops of the 25th Battalion raided enemy posts south of Mercatel. A box barrage was placed around the objective by our field-guns while our heavies engaged sunken roads

and trenches in the rear of the village. Two enemy posts were bombed and a third rushed with the capture of three prisoners. At least eight of the enemy were killed, while the rest of the garrison, running away, encountered our artillery fire. Our parties then withdrew under cover of a smoke barrage, having sustained only two slight casualties.

The same day, the daily Intelligence summary of the division reports in its dry official manner that at 4.15 p.m. a party of the 26th Canadian Battalion, consisting of a lieutenant and twelve other ranks, with a Lewis gun, " went out from our front line just north of Boisleux St. Marc with the intention of rushing an enemy post 750 yards from our line. . . . The L.G. was placed in position about 250 yards from the post and the officer and six O.R. rushed and bombed the post, which was found to be garrisoned by about twenty of the enemy. On our party's appearance over the parapet two rifle-shots were fired and the alarm given. Our party, finding the trench so heavily manned, threw bombs into the trench, causing many casualties. The garrison then ran in all directions and could not be followed on account of the wire and the distance they had to run. There was no M.G. in the post. We had one man wounded."

Three days later, just before midnight, the 24th Battalion carried out a raid in strength against enemy posts on the Arras-Bapaume road. Two parties, consisting each of two officers and fourteen other ranks, with two covering parties of one officer and ten other ranks, left our trenches silently, without any preparatory bombardment, and advanced four hundred and fifty yards towards their objectives. The covering parties then taking their positions, the raiders overcame two posts in short order, killing three men and taking three prisoners, after which they rushed the main position some twenty yards further on. The entire garrison, consisting of about fifteen men, was

disposed of with bombs, bayonets, and rifles, and a machine gun was destroyed with bombs. Our casualties were two slightly wounded. The same morning a corporal of the 18th Battalion distinguished himself by crawling through wire, under the protection of our riflemen and rifle-grenadiers, to an enemy sap, where he worked around a hostile post in the neighbourhood of an unusually strong pill-box. Capturing a sentry, the corporal shot two men who came to the prisoner's assistance and frightened away five others with his revolver as they emerged from the pill-box. The corporal then rushed his prisoner back to our lines under fire. Shortly afterwards fifteen Germans were seen to proceed to the raided post and to search for the missing men. Fire was opened on them and six fell.

Twenty-four hours after the 24th Battalion raid, the enemy retaliated with a raid in strength. Under cover of a heavy barrage, two hostile parties, each approximately forty-five strong, supported by two companies, advanced against our lines, only to be driven off by rifle and machine-gun fire before reaching our trenches, while our artillery dealt effectively with the supporting companies. The enemy suffered heavy casualties in returning, while our losses were light. Shortly after midnight, the 22nd Battalion replied to the unsuccessful German attempt by carrying out a little operation against the enemy's posts north of Boiry-Becquerelle, in which they inflicted many casualties and captured three prisoners. After an effective artillery, trench-mortar, and machine-gun barrage, the raiders attacked in four parties. The first two, operating to the right, rushed an enemy post, found that the Germans had retired, and continued to advance up a small trench to a large dug-out which appeared to be full of men. Four, who came out of it, offered fight and were killed; a fifth was taken prisoner; and between fifty and sixty bombs were thrown

down the dug-out entrance. After this little attention, two more prisoners were captured, though one of them was killed by a shell before he reached our lines. In the meantime, the other parties, working to the left, rushed a post, killing two men and wounding a third. Six Germans who endeavoured to escape were caught and killed by our barrage. Another five were found dead in a trench, having been slain by our artillery fire. The same night, two parties of the 18th Battalion rushed another enemy post and bombed more of the enemy's line.

So May passed and June entered with much the same round of activity and danger by day and night. Some conception of the general conditions in the area, without taking into consideration any actual raiding activities, may be gathered from the following extracts from the daily Intelligence summary of the division for the period 6 a.m., June 1st, to 6 a.m., June 2nd. The summary reports ten reconnaissances by our troops during the period, five on the right brigade front and five on the left. It then continues, in the form and phraseology of the army:—

"*Artillery. Ours.* The usual harassing fire on roads, tracks, and centres of activity was carried out and several opportunity targets were engaged. Hostile T.M.'s and M.G.'s were fired on S.W. and N.W. of Boiry. Retaliation was called for at 1.55 and 4 a.m. on the right on account of heavy hostile shelling. Our heavies have been active during the period in counter-battery work and explosions were observed to have been caused. The Sugar Factory S. of Neuville Vitasse and H.Q. in No. 21a received particular attention.

"*Hostile.* During the day hostile artillery activity was not so marked. Bursts of 7.7 and 10.5 c.m. were fired on the forward area and S.E. of

Agny at irregular intervals. During the night there was increased activity on the whole front. At 2 a.m. an intense barrage of all calibres was laid down on our support lines and rear areas which lasted for over an hour and consisted of a large proportion of gas shells. Gas was especially used against our battery areas S. of Agny and Beaurains and low-lying areas, but appeared to be also mixed with the majority of the shelling throughout. The bombardment lasted till 3.30 a.m. At 4 a.m. a heavy concentration was fired on Mercatel and on front line and supports nearly up to Neuville Vitasse.

"The enemy maintained vigorous harassing fire throughout the night on roads and tracks, and particularly around Mercatel, Blaireville, and Ficheux areas. Telegraph Hill Switch also received considerable attention.

"*T. M. Fire. Ours.* Our Stokes fired 124 rounds on hostile M.G.'s and posts in Neuville Vitasse.

"*Hostile.* H.T.M.'s were active at intervals against our F.L. opposite Neuville Vitasse and E. of Boisleux St. Marc.

"*M. G. Fire. Ours.* Our M.G.'s fired 25,000 rounds during the period in harassing fire and a further 500 against E.A.

"*Hostile.* Enemy M.G.'s showed the usual activity in sweeping No Man's Land and our forward areas.

"*Aircraft. Ours.* Our planes were active throughout the day and night.

"*Hostile.* E.A. attempted on several occasions to cross our lines during the day, but were turned back in every case by A.A. and M.G. fire. Between 8 and 8.30 p.m. 7 E.A. crossed our lines."

It was, indeed, an active life at all hours. For weeks our heavies had been engaging special targets,

carrying out destructive shoots and combining with our lighter guns in counter-battery work and in concentrated, harassing fire on enemy assembly areas, communications, supports, and front lines. Our infantry had been almost constantly busy. Night after night, enemy posts and trenches had been raided, while the Germans, save for an occasional raid in strength and for marked artillery activity, had made little reply to our worrying tactics. Nor had their long period in the line diminished the eagerness or weakened the strength of our men. The 20th and 29th Battalions on the morning of June 3rd gave signal proof of their raiding ability by bayoneting and bombing their way along hostile trenches, capturing nineteen prisoners, three machine guns, and one trench mortar, blowing up many dug-outs, and inflicting extensive casualties. In their attack, which was directed against a maze of enemy trenches south of Neuville Vitasse, the men of the 20th Battalion were everywhere successful, capturing thirteen prisoners as well as a machine gun and trench mortar. All the previous afternoon and evening our artillery had shelled the village. Just after midnight, the fire increased to barrage intensity, with our machine guns and trench mortars combining in a concentrated bombardment. As soon as this barrage lifted, the Ontario troops jumped to their task. Shooting opposing sentries, they moved on in the darkness to the enemy positions. Here, in a tangle of wire, trenches, and dug-outs, severe fighting occurred. In some places, the foe offered a determined resistance, holding on to their positions until killed in hand-to-hand fighting or blown out of them by our bombers. In other places, however, they crowded into shelters, endeavouring to hide and showing a marked readiness to cry "*Kamerad.*" Those who did not surrender were bayoneted. Then our bombers, pressing on, bombed additional dug-outs and adjoining shell holes. At the same time, under a like barrage, the 29th

Battalion was giving a good account of itself along the Arras-Bapaume road, north-west of Boiry-Becquerelle. Here two parties, attacking along either side of an old communication trench, penetrated the enemy outpost line. Three wounded and three unwounded prisoners were taken and two machine guns, but only after sharp fighting, in which the Germans suffered numerous losses, while our casualties, though appreciable, were light in view of the nature of the operation.

So affairs continued on this part of the front until July came and the 2nd Division handed over its line to the 3rd Division to maintain the excellent record and found itself at rest with the remainder of the Canadian Corps.

Since May 7th, the various Canadian formations behind the line had been enjoying a period of quiet as welcome as it was merited. It was a strange contrast to the days of Vimy and Passchendaele and the long period of anxiety and strain defending the ridge during the spring operations. But even in these days, the fact of war was always apparent. The corps was under four hours' notice for action and its forces were disposed as follows that they might be easily employed:—

Headquarters.....	Pernes, and later Bryas.
1st Canadian Division..	Le Cauroy Area.
3rd Canadian Division..	St. Hilaire Area.
4th Canadian Division..	Monchy-Breton Area.

Under instructions from the First Army, one infantry brigade and one machine-gun company from each of the divisions were billeted well forward in support of the corps in the line, as follows:—

(a) One infantry brigade One machine-gun company	Anzin Area. Support 17th Corps.

(b) One infantry brigade One machine-gun company	}	Château de la Haie Area. Support 18th Corps.
(c) One infantry brigade One machine-gun company	}	Ham en Artois Area. Support 11th Corps.

These units were kept at one hour's notice from 5 a.m. to 7 a.m. and under four hours' notice for the rest of the day. The brigades were relieved from time to time under divisional arrangements. On May 23rd, the 74th (Imperial) Division, newly arrived from Palestine, came under the corps for administration and training. And the training was not light. Great days of action were unquestionably ahead for the Canadians. They might come at any time. Reconnaissances of the front which the corps would have to support in case of attack were ordered and carried out by staff and regimental officers. Intensive training in open warfare in anticipation of offensive action was practised systematically during May, June, and July. In this training, special stress was laid upon overpowering resistance in areas defended by machine guns in depth by using covering fire and smoke grenades, and upon machine-gun and infantry and infantry and artillery co-operation. The closest attention was also paid to individual training, particularly to musketry in all its phases. During this period means were devised for making Stokes guns and 6-inch Newton trench mortars more mobile, and special mountings were designed, manufactured, and tested. The calibration of field-guns was also carefully carried out, and experiments made on the use of high explosive for barrages. A keen interest was given to all this important work through early preparations for the recapture by the Canadians of Merville and part of the Lys salient. The operation did not develop, but the prospect of it greatly influenced the training.

With the corps at rest, time was afforded to com-

plete the comprehensive plans for reorganization which had been approved by the Commander-in-Chief and the Minister, Overseas Military Forces of Canada. The activities of the early spring, together with the shortage of transport and materials caused by the great demands made by the reorganization of the British units and the simultaneous equipment of the American forces, had prevented complete realization of these proposals, but now final action was taken.

Reorganization of the engineers, to quote General Currie again, " was effected by the expansion of the three field companies then with each division into one engineer brigade, consisting of three engineer battalions and a pontoon bridging and transport unit. The additional personnel required was furnished by the absorption into the new units of the following: 107th, 2nd, 123rd, 124th Canadian Pioneer Battalions, 1st and 2nd Tunnelling Companies, C.E., and the three field companies of the 5th Canadian Division Engineers.

" Motor transport was included in the establishment, and later a Canadian Engineer Motor Transport Company was formed.

" The amount of work involved was considerable, nevertheless all the units were substantially completed and made cohesive before the end of July.

" Adequate staffs able to deal with the larger scope of activity of the new organization were provided for the G.O.C., Canadian Engineers, and for the engineer brigades.

" Authority was also received and immediately acted upon for the formation of A.A. Searchlight Companies, C.E. This had been asked for in view of the increase in hostile night bombing, which, in addition to causing casualties, interfered greatly with the resting of the men.

" The reorganization of the Tramways Company, C.E., was also completed.

"Application had been made early in the year for authority to form a Field Survey Company to assist in counter-battery work, and in the collection of intelligence; this unit to consist of an Artillery Flash-spotting Section and a Section of Intelligence Observers.

"The personnel had been selected and trained during the winter. Final approval having now been obtained, this Field Survey Company was definitely organized and placed for the time being under the G.O.C., C.E., for administration, and under the Counter-Battery Staff Officer and Intelligence Branch for operations.

"The addition of a third company to the battalions, Canadian Machine Gun Corps, was authorized on May 7th, 1918, and the organization, which was already well under way, was rapidly completed with the exception of the transport of the 3rd Battalion, C.M.G.C., which transport did not become available until August.

"The organization of the Motor Branch, Canadian Machine Gun Corps, having been approved on June 3rd, 1918, two Motor Machine Gun Brigades, of forty guns each, were formed by absorbing the Canadian Motor Machine Gun units already existing and the 17th, 18th and 19th Machine Gun Companies of the 5th Canadian Division. A Canadian Machine Gun Corps M.T. Company was also formed for the administration and maintenance of the Motor Transport."

While this reorganization of various arms and services was being completed, the machinery, both for receiving, training, and despatching reinforcements from England and for dealing with returned casualties, was revised and improved. A headquarters reinforcement camp was established with a permanent base, and a staging camp was provided to ensure quick handling of troops.

The result of all this training and reorganization

Canadian Official Photograph

OFFICERS 2ND BATTALION MACHINE-GUN CORPS, 1918

was to make the Canadian Corps the strongest fighting unit on the western front. Also, with sufficient mental and physical exercise, men and officers had the benefit of weeks of relaxation and amusement. The 4th Division headquarters at Bryas, for instance, was a place to delight the eyes. Established in an old château that was rich in the history of royal guests, surrounded by spacious lawns, green though untrimmed, by forest and by shrubbery, the Headquarters Staff lived in a paradise. They held a veritable reception on May 22nd. There were nursing sisters there, first of all, from Canadian and British casualty stations, and with them were generals whose names were household words in the Dominion and staff officers innumerable, the red and blue and green of brassards, tabs, and hat bands combining with the smart uniforms of the nurses to give touches of colour to an animated scene. The afternoon was occupied with an exhibition of baseball played by hot and enthusiastic officers. At five o'clock cakes and tea, coffee, biscuits, sandwiches, and lemonade, and other delicacies proved that, war or not, the Canadian divisions were equal to most occasions. After tea there were green walks and shady lanes and old pictures and china and comfortable chairs and more sports — things to satisfy many tastes and as far removed from war as the atmosphere of the place and the thoughts of those who had the good fortune to be present.

So much for the day. In the evening there was a dance with regimental music, a good floor, and delightful partners. People left that dance reluctantly and only at the last minute. But nursing sisters had to return early to their hospitals, and with their departure the garden party and dance came to an end. Returning with those nurses, you might have sat on the steps of a mess in a casualty clearing station with one of your partners of the dance and watched the search-

lights sweeping the sky for enemy aeroplanes. In the moonlight, you could have seen the bursting of anti-aircraft shells — mere fire-flies of light in a great space — and here and there you could have heard the distant rattle of machine guns and seen the occasional flicker of " tracer " bullets. Then, as the night grew on, you would hear the distant and unmistakable hum of hostile machines and the far-away burst of exploding bombs. In tents close at hand, other sisters were tending the wounds of grievously injured men and even at that time some life might have gone out for Freedom's sake. Always there was the tragedy, always the glory, of men who suffered and died that Freedom might live on the earth. Always there was the patient, wonderful service of nursing sisters who knew of the agonies and terrible torture of war and who lived to serve and so living were touched with the divine.

There was much anxiety for the Canadian hospitals during this period. Between May 19th and May 30th, four Canadian hospitals were more or less wrecked through the activities of German airmen. Six Canadian nursing sisters were killed or died of wounds, nine were wounded, two medical officers were killed, and two wounded, one of whom subsequently died, and over one hundred and seventy non-commissioned officers and men of the hospital staffs were killed or wounded. Of the patients themselves, fifteen were killed, seventy-eight died of wounds, and eighty-two were wounded. Wards were riddled with pieces of bombs and huts were wrecked or partially demolished. The first enemy raid on the night of May 19th was on the great hospital area at Etaples, where Canadian General Hospitals Nos. 1, 7, and 9 formed three units in the colony of British hospitals which housed thousands upon thousands of patients. Many stories have been written of this raid. It was reported at the time that the British authorities had had warning that as

the hospitals were adjacent to legitimate military objectives, the Germans would not be responsible for damages from air raids. It is certain that at both Canadian hospitals after the event there was general criticism of some of the first reports of the bombing operations which stated that the hospital area was indicated by glaring Red Cross signs. There can be no doubt that the Germans must have known the hospital location. There is no reason to believe that they would have been deterred from bombing by humane considerations. But the hospital colony was adjacent to a railway and was between military objectives. There were no great Red Cross signs to mark the hospitals by day and no visible night signs to indicate their precise location. The roofs of numerous hospital huts were camouflaged with paint after the military fashion and there were no dug-outs or special shelters for the nurses or walking wounded in case of raids. Under such conditions, the escape of patients and hospital staff from much greater losses was almost miraculous.

The bombing started about 10.30 p.m. In the next two hours, hostile planes visited the hospital area six times, dropping forty-three bombs, some of them of large size, in a total area of only sixteen acres. Canadian General Hospitals Nos. 1 and 7 were the greatest sufferers. In both establishments, enemy bombs, whether incendiary or not, caused large fires which undoubtedly attracted the bombing planes and which accounted in great measure for the comparative immunity from damage of adjacent British hospitals. No. 7 Canadian General Hospital was the first to be struck. In it there were some sixteen hundred patients, of whom nine were killed and thirty-nine wounded, while of the staff fifty-nine were killed or died of wounds, including one officer and three nursing sisters, and sixty of the staff were wounded. Twenty-two bombs fell in the hospital area. Fifteen wards were damaged. Almost the first bomb fell on the

living quarters of the staff, setting fire to the huts, killing fifty-five men and wounding all in the quarters at the time. Many of the men never woke from their sleep, but died in their beds. Others, who were caught in the flames or hit by flying bits of bombs, were rescued by the nurses, officers, and other members of the staff, and voluntary helpers who worked nobly under the bombardment. The quarters of the nurses were wrecked by a bomb which killed three sisters. Nurses on duty had miraculous escapes, none being wounded. The hut of the Commanding Officer was destroyed and some forty other huts were burned. Canadian General Hospital No. 1 suffered an almost equal bombardment, though the casualties were lighter. Nine patients were killed and thirty-nine wounded, six of them being Canadians. Providentially, not one nursing sister was hit, but three officers were wounded. Of the members of the staff, one was killed, two were so severely wounded that they died later, and twenty-one were more or less severely wounded. Some conception of the way in which the nurses, officers, and other ranks carried on during the bombardment, in the course of which twenty-one bombs were dropped in the hospital area of eight acres, may be gathered from the fact that eleven new cases were treated during the raid. Bombs dropped all around the nurses' quarters. Out of forty officers' huts, only two were not hit. Fortunately, the usual Sunday concert party had kept the officers and nurses away from their quarters. Had the raid occurred half an hour later, many more must have been killed and wounded. Here, as at No. 7, fire added to the horrors of the night. The tented wards for walking patients were in flames shortly after the bombardment started, and numerous patients sustained fresh wounds while endeavouring to reach places of safety.

The horrors of that night were repeated ten days later at Doullens, when No. 3 Canadian Stationary

Canadian Official Photograph

THE FUNERAL OF SISTER MARGARET LOWE, WHO DIED OF WOUNDS RECEIVED DURING A RAID ON CANADIAN HOSPITALS

Hospital was bombed. Here there was no possibility of questioning the deliberate intent of the enemy. Situated in an ancient fort built on high ground dominating the city, the hospital had been in existence from the early days of the war. It lay well apart from the town, with fields on three sides of it and a French hospital on the fourth. There were no ammunition dumps, stores, camps, artillery, or any other military material in its neighbourhood. Giant red crosses were painted on the roof and it must have been well known to enemy airmen. During the evening, the Germans had been shelling the city. Half an hour after midnight, a Boche aeroplane dropped a flare over the hospital and followed it immediately by a bomb, which fell directly on one section of the buildings, going through the attic and second and first stories until it exploded in an operating room on the ground floor. An operation was in progress at the time, and the whole of the surgical team, including nurses, patient, and stretcher-bearers, were instantly killed. Fire broke out and threatened the whole upper group of buildings. The flames spread rapidly, and the nurses and orderlies, who behaved with magnificent courage, had the utmost difficulty in removing the patients to places of safety. Of the staff, two officers, three nurses, six non-commissioned officers, and ten other ranks were killed, while one nurse and fifteen other ranks were wounded. Among the patients, six officers were killed, two were subsequently found to be missing and reported dead, and three other ranks lost their lives.

Hardly twenty-four hours later, the Germans bombed Etaples again. This time, No. 9 Canadian Stationary Hospital suffered numerous casualties among the staff. The hospital, established in huts, had fortunately not begun to receive patients, but an officer was killed, and two nurses and fourteen other ranks were wounded.

Such atrocities as these, the Canadians were to punish later. They did not forget Etaples and Doullens and the *Llandovery Castle*. Nor did they forget to render all possible assistance to the French refugees who daily passed through their areas on their way out of the war zone. The Sous-préfet of Bethune, which was little more than a shell, in a message to the corps in the middle of June, conveyed the warm thanks of the French Government for the kindness that the Canadian Corps' staff officers and the Y.M.C.A. had shown to their refugees. That message is not the least treasured possession of the corps. It gave expression to services which it had generously rendered to the destitute of France, particularly during the period when the Germans were endeavouring to outflank Vimy Ridge from the north and south. Without food, often without transportation, many of the French peasants were in pitiful plight. While the French authorities co-operated to supply locomotion and the British to provide rations, the Canadian Corps made it its particular business to provide both. Two large staging camps were built, with a total capacity of several thousand persons. The Canadian Y.M.C.A. supplied tea, coffee, biscuits, and other food-stuffs to the refugees and also erected large and small relief tents at numerous points along the roads. In one model evacuation conducted by the corps, four hundred men, women, and children, with all the household effects that could possibly be carried, were moved in lorries. Every child had two sticks of chocolate, every woman had milk, and general rations were supplied for all. In addition, in this as in other cases, the corps provided personnel to help the refugees move and store the furniture and effects that they could not carry away. The Director of Mines at Bully-Grenay wrote as warmly to the corps as the Sous-préfet of Bethune, and the French Mission at Corps Headquarters was outspoken in expressions of grati-

tude for the services rendered. Further, in all the uncertainty and unavoidable confusion of evacuating villages under shell-fire, not one case of damage to property or of loss of goods was reported in any areas assisted by the Canadians.

By such good acts as these, the corps won hearts in France. Canadian soldiers received warm welcomes wherever they went, and there were few places in the region between Bethune, St. Pol, Avesnes-le-Comte, and the forward area that did not nightly entertain many of them. Their badges brightened a multitude of streets and their bugles were heard in many towns and villages. At dusk, little *estaminets* echoed their full-voiced choruses of old, familiar songs, and in groups of twos and threes they fraternized with the natives or made merry on exclusive parties that were nobody's business but their own. Other divisions vied with one another to surpass the 4th Division reception. Canadian nurses knew a joyous time and had many special trips to what was to them "the forward area." Battery and battalion, brigade and divisional sports followed one another until the athletic activities of the corps culminated in special Dominion Day sports on July 1st. Six day later, the corps was warned to relieve the Seventeenth (Imperial) Corps in the line. The relief was carried out and completed by July 15th. The days of rest were over. The corps, mightier than ever, was about to enter on the most successful period of its history, the Last Hundred Days.

CHAPTER V

ON THE EVE OF A GREAT BATTLE

THE last hundred days of the war, in perhaps the greatest battles ever fought in the history of the world, Canada's divisions won the highest place among the fighting troops of Europe. To friendly allies and to enemy alike, Amiens, Arras, and Cambrai, the very centres of Marshal Foch's great, continuous offensive which ended in overwhelming victory, won for Canada the ultimate in golden laurels of battle for civilization, which she had gained in previous hard-fought struggles. Ypres and St. Eloi, in our salad days of modern battle, showed what stuff Canadians were made of. The Somme, with Courcelette and Zollern Redoubt, put Canada, without being unduly vain, ahead slightly in the running as storm troops in keen friendly rivalry with Imperials and Australians. Vimy Ridge was a tribute to the advancing military acumen of our citizen commanders. Passchendaele gave tribute that the men of the Maple Leaf had lost none of their dogged courage and that the seemingly hopeless task was never impossible to them.

In those dark and dismal days of March, 1918, when the situation on land and sea was of the blackest and when Ludendorff, the great German commander, in his own words, was full of optimism, hoping for a rapid victory before the Americans could reach their full-fledged strength, the Canadians, with the exception of a brigade or so, which held the invincible southern section of Vimy Ridge, were, as we have seen, "at rest." But from the broken line at Amiens

and from the threatening, bending position at Bailleul came the cry to the corps for help: "Send us the Canadians; they are at full strength and doing nothing."

One Canadian unit did go to Amiens and with hundreds of machine guns helped to slow down the German thrust. But that old, wily father of the Allied Command, Marshal Foch, was in supreme power; he would not let the Canadian divisions be used. Field Marshal Sir Douglas Haig pleaded in vain. Foch was adamant. At that time in a cosmopolitan mess at Villers-Bretonneux — brigadiers without brigades and British staff officers without an army to work with — the writer heard the Canadians called, in no friendly mood, "Foch's Pets." The big Canadian colonel of motor machine guns and armoured cars, which were then out fighting desperately, was a good defender of Canada's name, but the best retort came from a dapper French staff officer who had been vainly trying to knit together, across that German wedge now almost at Amiens, the divided French and British forces.

"Foch's Pets!" he cried, as he rose to his feet and saluted the Canadian colonel. "Foch, the old brave, knows, my comrades; he is no fool." And Marshal Foch did know; yet even the great Allied Commander-in-Chief could not have dreamed what the men from British North America would mean to him when the tide of war again turned even before the year was out. History now shows that in those last victorious hundred days Canada's men at arms were always the very centre — the spear-heads — of his main British offensives.

Ludendorff, in his book published within a year after the cessation of hostilities, pays testimony to the Canadians. He puts the men of the Maple Leaf first when he says: "The English Colonials and the French broke deep into our line between the Somme

and the Luce, where our fresh divisions were completely overrun. Six or seven German divisions which could be described as thoroughly fit for battle had been defeated. The eighth of August marked the downfall of our fighting strength and destroyed our hopes of strategical amelioration. To continue the war was to start a gamble. The war had to be ended."

His tribute is flattering enough, but analyzed is even more flattering. From the Luce to the Somme, outside of one Australian division, there were no troops but Canadians. The French, in addition, joined up at a distance of more than five miles south of the river Luce. The Australian division, mentioned above, having the difficult ground of the winding valley of the Somme to tackle, was concentrated on a three-mile front. It was even a greater tribute to Canada when it was found out by the British Intelligence Department that in the first two days at Amiens nine German divisions had been pitted against the Dominion's four.

In those hard-working "resting" days from early in May, 1918, which lasted until the sudden and secret move south late in July, the Canadian Corps did much and learned much. Nominally it was training in methods of open warfare. It was preparation for much more. Watched by Marshal Foch's keen eye, — the French Commander-in-Chief was several times a visitor at Corps Headquarters at Pernes and later Bryas, — it developed the corps into what was to be the most powerful striking force on the western front. Those days of Canadian military-political intrigue when Canada should have had five or six divisions in the field, with two gallant commanders in Sir Arthur Currie and Sir Richard Turner, were now turned to good account. There wasn't a British, Australian, French, or German division that was up to the strength of those from the Dominion. Reinforcements which amounted to the equal of two more divisions

of trained men, were in France, though further south, near Montreuil, the British General Headquarters, where Field Marshal Haig could keep an eye on them, and at Etaples, where all the latest schooling in war was taught by trained veterans. There were no lazy days in any of the camps. It was so much harder work than in the trenches that brigades pleaded for a turn in the front line. Very few got it, and the thirty-mile-a-day forced marches and the thousand and one quick mobilizations that stood in such good stead in later days of victory were practised week after week. The keen eye of the British Command saw many new wrinkles that Canadian divisional and brigade commanders had worked out, and soon two British divisions, just back from Palestine, were sent to learn the new methods from the young bloods from overseas.

And all through this training the Canadian Corps was being strengthened until finally it was as effective and complete as an army — and almost the equal in numerical strength of the British armies of that time. Battalions were each one hundred men over official strength. First the engineers were tackled, and what they did at the acid test must be told in later stories of Canada's battles. The three field engineer companies of each division were organized and greatly augmented and made into an independent unit under corps command. The 107th, 2nd, 123rd, 124th Pioneer Battalions and the 1st and 2nd Tunnelling Companies, the whole numbering something near five thousand men, were added to the unit. Before the trek to Amiens an engineer motor transport unit that could "go anywhere and do anything" in destroying or repairing was organized. Brigadier-General Lindsay had command. Corps railway troops, apart from those other Canadian construction units which were distributed all over the western front, were augmented. Another battalion of specially trained machine gunners was added to the Machine Gun Corps.

The Canadians were becoming more than a corps. They were as well established as an army — almost as numerically strong.

In the training of those days no detail was overlooked. The corps had to act as if it were in actual contact with the enemy. Battalion commanders each day were issued orders which contained translations of captured German documents, supplemented by notes on recent fighting with views both of offence and defence. Tactical schemes for overcoming areas commanded by enemy machine guns were carried out. Masks of smoke grenades were used, and so perfect was this training that, later, in the heavy fighting on the Arras and Cambrai fronts, advancing battalions were able to gain machine-gun-swept ground with comparatively small losses. Of the training of the Motor Machine Guns — an elastic title — and their 6-inch trench mortars, there is a chapter written elsewhere.[1]

There was some rest during the days of hard training. On July 1st the Canadian Corps, little dreaming of the task that was only a month ahead, held the most successful Dominion Day celebration they had experienced. There were over thirty-five thousand of their own men and of Scottish divisions which were in training with them to see the fighters at play. The Duke of Connaught, Sir Robert Borden and other Canadian Cabinet Ministers, Sir Douglas Haig and the leading British commanders, and Marshal Petain were there among the spectators. Marshal Foch was to have come, but, seated in his little château on the Paris-Amiens road, he was planning bigger events for his "pets." Two off-duty squadrons composed of Canadian pilots took on the friendly job of patrolling the clear blue skies to prevent German planes from coming over and disturbing matters.

On July 15th the Canadian Corps, carrying out the

[1] See Vol. IV, p. 298 et seq.

Canadian Official Photograph

SIR ROBERT BORDEN, HON. J. A. CALDER, AND THE CANADIAN CORPS COMMANDER WITH CANADIAN OFFICERS DURING THE PREMIER'S VISIT TO THE FRONT

intricate camouflage scheme which the Higher Command had planned, went into the line, relieving the famous Imperial XVII Corps. Already the great German attack had begun and the situation to the south of Lassigny, where the French were weakened, was most critical. As soon as the Canadians moved in, just north of Arras, the Germans increased their divisions. Three new units which had been in rest for such an event were brought up to reserve. Word must have got through of the Canadian offensive training period and if the attack was to be made here the enemy decided he would be prepared. Our artillery began a heavy barrage fire as if practising for an attack. Our Intelligence reported the arrival of two more German divisions. Prisoners the Germans had taken in some of the Canadians' daring raids told their captors of the hard open-warfare training they had been through. Master Fritz was confirmed in his suspicions. His artillery was strengthened by big guns and feverish work was done even during daylight on his machine-gun fortress at Monchy-le-Preux.

On July 20th Major-General J. H. Davidson, the chief of operations on the British Staff, visited General Currie. He faintly outlined a scheme for regaining the Amiens Line lost during the previous March. Next day the Corps Commander was at a conference at British Headquarters in the little château at Montreuil. He took with him only Brigadier-General N. W. Webber, his brigadier-general of the General Staff. General Webber was a fine type of Imperial officer who had been attached to the Canadians from the very first. He became so enthusiastic regarding the soldiers wearing the Maple Leaf that, on his own initiative, he gave up his Imperial rank and joined the Canadian forces.

The Canadian Corps Commander's words, since published, show that on the initial success of his forces depended the question as to whether there would be a

general Allied offensive. Before that conference of July 21st at British General Headquarters, the retaking of the old Amiens Line and the building of a great defence system like that the Canadians had constructed at Vimy Ridge, to hold back the Germans during the winter, was the main scheme discussed. Sir Arthur Currie suggested his alternative, which was finally adopted. He argued that, however good the trenches, the daily losses of an ordinary corps throughout the winter would average two hundred casualties, however quiet the front might be. His plea for forcing the issue and his confidence prevailed. If the Canadians won their surprise attack, one more attempt for a decisive battle in 1918 would be made. General Currie, on his return to Canada, told the writer: —

"When we went into the line east of Arras we immediately prepared to attack. Up to the first day of August it was intended to fight only one more battle that year and then sit tight through the winter and wait for the Americans. Many believe that large casualties occur only in battles; we had an average of over two hundred per day even when we were not actively engaged. For many months the Canadian troops had forgotten to sing as they went up to the attack. Just before the Battle of Amiens the entire corps broke into 'Hail, hail, the gang's all here; what the hell do we care now!'

"'God help the Boche to-morrow,' I said to my staff when I heard them."

Back from the conference at General Headquarters came those wise men who were at the meeting. They held tight within their breasts the plan that the wise old Foch had worked to the finest detail and that Sir Douglas Haig had agreed to — not only the recapture of the Amiens Line, but the beginning of a great offensive that it was hoped would end the war in 1918, by the smashing of the German armies.

Canadian Official Photograph

SIR DOUGLAS HAIG AT THE CANADIAN FRONT

Next comes the story of the great " camouflage " which completely deceived the enemy and even the staffs of several British armies. The Canadians were safely moved from the line at Arras, and Australian and Imperial troops kept up the liveliness that, to the Germans, predicted the coming attack. Back into their old training areas moved the Canadians, complete with artillery, engineers, and transport. By this time they knew they were slated for important offensive work in some part of the line. Gossip, carefully spread by Canadian staff officers, whispered that it was to be back in the old Ypres salient. It seemed a certainty to the man in the ranks and the lesser commanders. Two battalions of well-known fighting qualities, the 27th (Winnipegs) and the 4th Canadian Mounted Rifles (Central Ontario), were sent " secretly " northward. Even the correspondent was taken in — not into confidence, but used in the theatrical draping of the stage.

" If you want to get a good billet for the show," said Brigadier Webber to the writer, " slip up to Second Army Headquarters and get your booking in." It seemed a quiet, friendly tip, and the correspondent went up to a little village near St. Omer that he knew of old.

" How did you get on to the move? " asked the staff officer of Second Army Intelligence, and he answered it was just a private tip. After credentials were shown, the officer opened up a map with the billeting areas reserved for Canadian divisions and the correspondent chose one near Cassel which was picked for Canadian Corps Headquarters. In confidential mood he added that two advance battalions and some artillery and transport had already arrived. To prove his bona fides the correspondent mentioned the numbers of the battalions. Never did transport and battalions make such a noise and so freely let their movements be known as did these " camouflage " units

back among old friends in the *estaminets* behind the Ypres salient. The writer returned to Corps determined to tell friends that everyone would know of the move so carefully screened. But on arrival at Duisans there were no Corps Headquarters. "Foch's Pets" had gone out "into the blue." The British staff which replaced them said they had "gone to Ypres."

On that day the Canadian Headquarters had moved to Molliens Vidame, a quiet, rustic French farming town, south-west of Amiens, untouched by the war save as billets for occasional French reserve regiments. In five days the immense organization of Canada's army in the field had been moved south nearly one hundred miles with the exception of those infantry brigades, artillery, and transport which had swept northward during the clear afternoon of August 3rd, raising tremendous dust and filling the roads so that the watching German planes could not help noticing the movement. At night the corps found waiting trains at appointed stations and were hurried southward to the strategic railway system behind Amiens. Others, less lucky, marched on dark roads and rested, hidden in friendly woods, during daylight. Those quaint little villages around Molliens Vidame, Flexicourt, Bougainville, Floy, and Pissy waked up to find thousands of restive men from far-off Canada as their guests and they opened their hearts to them. But there was little time for pleasure.

Amiens, the fine classic city of the Somme, splendid in its dignity, though shell-torn and racked by night after night of bombing, magnificently sheltered in its wooded parks and deserted houses the thousands of the Canadian artillery units and their guns; and with the old corps, to be comrades in their greatest venture, were the Canadian Cavalry Brigade. Those expectant nights in the large, almost deserted city were wonderful in their renewals of Canadian friendships. Units which had not seen each other

since early days at home met and discovered old friends.

Under the long avenues of trees that skirt the river and the old canals were thousands of artillery horses, and beside them, camouflaged by the thickened leaves of August trees, were the horses of Canada's cavalry. Hundreds upon hundreds of guns, ready to limber up each night, were hidden in the ruined buildings. The miracle of it; how the enemy, in those fateful, waiting five or six days, never suspected the giant concentration, will never be solved. It was harder for a stranger soldier or a former Amiens civilian to enter the town than for the old camel to pass through the eye of a needle. "Foch's orders," was the sentries' answer to excited French residents, and they bowed to it like loyal patriots.

"One for all and all for one," was the motto of the Canadian Corps, and that was the spirit encountered everywhere. The secrecy of silence was well observed. Night after night guns noiselessly moved into position south-east of Amiens and were so well hidden that the watchful Germans never noticed the additional strength. Major-General Morrison, the wizard of Canadian artillery, had worked out all the ranges, had even in those strenuous days of training taught his men the German system of ranging or the equivalent in good Canadian, so that when the happy moment came to use the captured German guns they would be accurate. Under his command on the morning of August 8th there was the most powerful artillery concentration since the war began, not even excepting that of the first German onslaught against Belgium.

The cavalry, with a week's rations, swept out to the plateau south of Amiens on the night of the 7th. It was the writer's privilege to be astride with the merriest, happiest force that ever rode forth for modern battle. Our own cavaliers smuggled themselves safely into Gentelles Wood, winding carefully

over the open fields behind the line, so that the switch of Australian to Canadian troops would not be interfered with. Night after night every track was filled with supply parties, and yet the Germans, sullenly silent, did not suspect. There were over half a million men on that thirteen-mile front which was to be the centre of the greatest attack in the war. On the 7th what threatened a catastrophe happened. A patrol of eight Australians on the left section next to where the Canadians had already taken over were captured in a raid. They knew of the Canadian preparations and they knew details of the part their own corps was going to take further north. One unlucky slip would have given the whole show away to German Intelligence. Canadian Headquarters and the divisional commanders who were to lead the attack showed their anxiety. But that onward wave surged forward with complete surprise and success. Not a secret had been divulged by the prisoners from the land of the Southern Cross.

The Canadian Corps were to be the centre of the attacking line. The zero hour was fixed for 4.15 a.m. (on Thursday, August 8th), as had been the Vimy hour and the final attack on Passchendaele. The artillery was to be ordinarily silent until that hour, when the famous rolling barrage which General Morrison had perfected would be launched — behind it would follow tanks and the Canadian infantry.

CHAPTER VI

THE BATTLE OF AMIENS

THE British front was about twenty-five thousand yards, stretching from Moreuil, on the river Luce, south of the Amiens-Roye road, on the right, to Ville-sur-Ancre, north-east of Amiens, the extreme left. At the last minute, the French having come up in stronger force than anticipated, the crack First French Army took the section from Moreuil to Thennes, a little battered village on the river Luce, and thus allowed the Canadian thrusting force to concentrate and become even stronger. The Canadian line was from Thennes to the Amiens-Chaulnes railway line. From the railway to the Somme the pick of the Australian Corps were to attack simultaneously and with them was the III Corps, whose objective was to be Morlancourt. In Hangard Wood were secreted the tanks, numbering one hundred and thirty. Others were brought up to Gentelles Wood late on the night of the 7th, under cover of the noise made by the engines of a score or so heavy British bombing machines, and sharp after the barrage they rolled like cars of juggernaut down the open land and trundled across the river, where engineers had hastily built staunch bridges, heavily timbered and buttressed with rocks. Twenty or so lost themselves in the morasses of the river Luce, but the rest did good work, early in the game, clearing out machine-gun nests and terrifying the resisting Germans.

The ground over which the Canadian infantry had to charge was not of the best. Out of the beaten paths

were small bogs of dangerous depth fed by the river. The gaps between these were well wired. The most effective jumping-off place was the road from Domart to Hangard, and here the Canadians got through and into the open ahead of time and were only stopped by their own barrage.

The whole scheme of this part of the battle and the disposition of his troops had been left with the Canadian Commander and his divisional and artillery staffs. The 3rd Canadian Division, under Major-General L. J. Lipsett, was on the right and under liaison with the First French Army. Later, the division was under the command of Major-General F. O. W. Loomis. To the 1st Canadian Division was allotted the centre of the attack, under Major-General Sir A. C. Macdonell. The 2nd Division, under command of Sir Henry Burstall, had the extreme left, being in touch with the Australian Corps, and the 4th Canadian Division, under Major-General Sir David Watson, was placed close behind the 3rd Division.

The Australians, under Lieut.-General Sir J. Monash, had to gain the difficult country already fought over on both sides of the winding river Somme. Here the stream runs through countless ravines and the going, it was known, would be difficult. General Monash attacked with two divisions and kept two in close reserve, and the Australian leader showed fine soldierly qualities in placing himself, for tactical purposes, under the Canadian Commander.

The Canadian artillery had got into allotted positions without the least suspicion on the part of the enemy, though congested roads would not allow the bringing up of large reserve stocks of ammunition. But the grit of the Canadian gunners won through and during that eventful morning their ammunition teams drove forward, sometimes as far as seven miles, never letting the guns slow down for want of shells. With all roads covered with infantry

transport, their work was nothing short of a miracle.

Canadian Headquarters had been moved further forward to Dury, a little cluster of château and houses just south of Amiens on the Paris high-road. By a strange coincidence, which found the Canadians too enthusiastically hopeful of success to be superstitious, it had been the ill-fated Fifth Army Headquarters during the March débâcle. Divisional and Brigade Headquarters were almost in the front line, so sure were the commanders of rapid advance after the attack.

The previous night had been inspiring. On the right of the Canadians' new position, the most important sector, the Australians still held their line, though thinly and mostly with outposts. The weather was clear, but fortunately driving clouds in the sky reduced the starlight and there was no moon. The 3rd Division had the longest way to march in taking over; but silently — like ghosts of retribution — they marched across the Avres river at the bridge of Boves, around Boves Wood, which was crowded with necessary artillery and cavalry units, until they gained the village of Gentelles, and from here they filtered into the front-line trenches which were to be their jumping-off places. Their officers found that the "play" manœuvres they had gone through in June and July up in French Flanders were now the scheme of attack — it was so with all the divisions.

The barrage started promptly at 4.15 a.m. Below us the French guns, whose concentration the Germans had never suspected, joined in this mighty chorus of war. Major-General Morrison had under his command over seventeen brigades of ordinary artillery, nine brigades of heavy howitzers, and many long-range heavy naval guns. I found one Winnipeg major in command of two huge 15-inch guns which from

railway trucks sent projectiles a distance of twenty-odd miles. White and red and green flares and rockets went up from the German lines, the signals of extreme distress to headquarters and batteries. But the batteries hardly answered the call, so deadly was the aim of the British guns, and hundreds of German gunners were afterwards found prisoners in their dug-outs, locked in by the bursting Canadian shells. After the first half-hour and until the third day of the battle, the German artillery gave little trouble. Their old guns were in our hands and were being used against them by Major-General Morrison's trained experts. Cross-roads over which German reinforcements would have to pass were obliterated and little or no succour reached their yielding front line.

Dawn came up with a heavy mist. Across the river in front of Domart the engineers had filled in a granite culvert. Hundreds of lorries had dumped their loads into a solid mass which could carry the heaviest burdens and which could not be damaged by German shells. Over this the luckiest tanks " chugged " their way. In each were bombing and bayonet men of Canadian battalions, — wiping-up parties, — and they plunged into the wrecked German trenches and held them until the main infantry battalions charged up a few minutes later. Some of the men of the gallant 3rd Division had swum the river. The infantry swept on through communication trenches, killing hundreds of the disconcerted enemy, and were at their objectives on time. Many fell from machine-gun fire, there were numerous small redoubts still holding out, but the tanks broke the backbone of this resistance before they rolled on to new encounters. That mist saved the Canadian infantry thousands of casualties, and when it cleared it disclosed hordes of Germans they had missed, in scattered bands behind them. But for the most part these readily surrendered. With dawn the flying men had their chance and they dived

low over what remained of the German batteries, hindering them in the work of salving their guns until the armoured cars and cavalry got in and took the crews prisoner. It was a cloudy day overhead and by air observation little could be found out regarding what Germans were in reserve.

Not far from Demuin, well within the original German line, two tanks filled with Canadian machine-gun crews waddled into a German 5.9-inch battery which had escaped the barrage. The gunners fired at them over open sights and it looked as if the lumbering, moving forts were having a bad time. They halted in a hollow and disgorged the machine guns. Up the hill the Canadians stalked with their weapons and, taking the German crews on the flank, wiped out the lot. In the wood at Maison Blanche, on the main road from Amiens to Roye, these tank passengers came upon a German naval sniping battery of 5-inch high-velocity guns. Word was sent back to the Canadian Artillery Headquarters after they had been captured, and two hours later General Morrison's specialists were firing them into new German positions.

To continue with the 3rd Division. There was some of the heaviest and most unexpected fighting of the day to gain the high ground at Hourges which dominated the Canadian lines of communication. To the 9th Brigade was allotted the task, and they swept up the hill with a determination that was not to be denied. It was an old-fashioned infantry charge, but it was behind a strong, indirect machine-gun barrage, a Canadian invention, which effectively raked the hillside. The 52nd Battalion (Manitoba) and the 58th (Central Ontario) suffered heavily here, but they knew the hill had to be taken and many were the individual acts of heroism. One Winnipeg sergeant and five men bombed out seven machine-gun redoubts — then all the party were killed or wounded. Hourges Hill in the enemy's hands that day would have meant that

four different crossings of the river Luce could not have been used.

To the right of the new position of the 3rd Division, there rode out into the plains, just as the morning mist was lifting, the Canadian Cavalry Brigade, and with it the armoured cars and motor machine guns of Canada's Independent Force. The French were meeting with difficulties and were retarded and the Canadian flank along the Roye road was in danger of being left open to attack. The horsemen rode into scores of little villages, taking small groups of terror-stricken prisoners. Out on open ground, where concealment was good in the growing wild grain, they found the French advance guards coming up, and the cavalry left the flank defence to the armoured cars and the big motors which disgorged machine-gun batteries at every point of vantage. All day long these "trouble hunters" held the right flank and twice stopped German threatening attacks. At one time they were actually fighting behind the enemy, who were attacking Fresnoy-en-Chausée and Mézières, and in front of them at Le Quesnel was a lost reserve German brigade. Beaufort fell to the cavalry. In it Brigadier-General Paterson found a German commandant who did not know that his front line was broken. Under an escort of Strathcona's Horse he and his staff were hustled back to Canadian Headquarters. In all, the 3rd Division penetrated the German position to a depth far exceeding the wildest hopes and its divisional headquarters was moved three times to keep up with the advance. Finally they ended up in the woods of Maison Blanche on the Roye road, which had been a German artillery nest, and were preparing to attack a fresh enemy brigade at Le Quesnel when word came that the aggressive 4th Division was to relieve them and carry on the good work. In all, they had penetrated the German line to a depth of eight miles, a fine record for any division. The hardest fighting

had been borne by the 9th Brigade, when the 43rd Battalion (Manitoba) carried Hamou Wood against the stiffest resistance encountered on the first day, and the Mounted Rifle Brigades, after they had captured Hangard, charged down the slopes of the river Luce in face of terrific fire and dashed into Demuin, a broken rubble of what had once been a prosperous little factory town, that, after the first panic of surprise, the Germans would have used as a veritable fortress.

The 1st Division attack in the centre was slower, but just as successful. The 3rd Brigade of Highlanders, under Brigadier-General G. S. Tuxford, gained all objectives on time. There were fierce fights on each side of the Amiens-Chaulnes railway, which in this district runs through deep cuttings and had been honeycombed with German dug-outs where thousands of reserves could be placed. There was more open warfare for the 1st Brigade under Brigadier-General W. A. Griesbach, which just suited the 1st, 2nd, 3rd, and 4th, the crack Ontario battalions under that leader. They took the outskirts of Aubercourt, where they got in schedule touch with the right of the 3rd Division, went on their merry fighting way to Ignaucourt, where, with their comrades of the 3rd Brigade, they drove out the garrison with bayonet and bomb and then swept on to the high and commanding ground at Cayeux-en-Santerre, several miles beyond what was to have been their main objective for the first day. By a clever manœuvre they side-slipped from here, and, joining up with the left of the 3rd Division again, cut off several fresh German battalions which had been hurried up. Leap-frogging through them at critical moments came the 2nd Brigade under Brigadier-General F. O. W. Loomis.

The 2nd Division attack on the extreme left was the record for any one attack on the western front. They were ahead of schedule barrage time and by a lucky

chance their communications were in such good shape that they were able to accelerate their barrage. That first night they were just to the east of Caix, a distance of fifteen thousand yards into the German position. By 7.30, only three hours after the barrage had opened, the 4th Brigade, under Brigadier-General R. Rennie, composed of such fighting battalions as the 18th, 19th, 20th, and 21st (Eastern, Western, and Central Ontario), had taken Marcelcave. This was a large town in front of Villers-Bretonneux where factories had been turned into redoubts and huge dug-outs with electric light and running water constructed, and where cement communication trenches gave the Germans every advantage. The Australians, when they held this front, had tried many times to dislodge the enemy and their efforts had been costly to them; but they had been costly to the Germans also, as huge graveyards showed. The Ontario battalions escaped with comparatively light losses. The 5th Brigade, Brigadier-General J. M. Ross, followed on through the 4th. The men from Quebec and the Maritime Provinces were keen rivals of their comrades. They drove the Germans, by little pitched battles, out of Wiencourt and Guillaucourt, although not without several setbacks and renewed attacks, and late that night reported themselves at their final objective, the old Amiens Defence Line.

In this first attack on August 8th, perhaps the fiercest encounters were fought by the 1st Division. The 3rd Brigade's task was to take what was called the Hangard Strip, and they were to advance to Aubercourt after crossing the river Luce and joining in the general attack. Well-known battalions like the 13th, 14th, 15th, and 16th, all crack kilted units whose fame had been carried through from Ypres to Lens, were to be the spear-heads of this sector. The 16th, men from British Columbia and Manitoba, with Cameron and Seaforth tartans, were on the right. The 13th

Canadian Official Photograph

OFFICERS OF THE 14TH BATTALION, 1916

Of these officers, 7 were killed in action, 1 died as a result of wound, 12 were wounded, and 11 received decorations

and 14th were to be the leap-frogging, bucking line, and the 15th, Highlanders from Toronto, the left of the attack. The 16th ran into a machine-gun nest in the first ten minutes. Their colonel, later a V.C. winner, plunged ahead with his scout officer and a small patrol. Turning a curve in a sunken road, they ran straight into the fire from a German machine-gun battery and they were within fifty yards range. It seemed certain death to advance, but colonel, scouts, and all, letting out a yell that apparently struck terror into the foe, drove at the battery. With revolvers and rifles they killed or wounded so many of the enemy that the rest fled and the battalion was able to get up to the position almost without casualties. Later on in the day a runner of the battalion crept around to the rear of a German machine gun, shot the whole crew, and then returned to his officer to report that the coast was clear. At the cross-roads beyond Aubercourt, which had been a German brigade headquarters, the kilties ran into heavy cross-fire and it seemed as if their attack would be held up. Twice they were driven back, and then, by clever scouting, they located the guns and captured their crews. There was a set of dug-outs at this point and the clearing of them was delicate business, but the work was done thoroughly, many prisoners being captured, among them a German regimental commander — equivalent to one of our brigadiers — and his whole staff.

The 13th Battalion, the Royal Highlanders of Canada, had desperate fighting in gaining their first objective in Hangard Wood West. They managed, with the aid of friendly tanks, to wipe out several machine-gun redoubts, but there was such a heavy concentration on the far end of the wood, where were situated the dug-outs of a Bavarian regiment, that twice they were compelled to withdraw. In addition there was a strong set of trenches named by the British Croat's System, and all were heavily manned. Bringing up

the trench mortars which were attached to them, the Canadians bombed the reserves from the wood and then plunged down into this system with bayonet and hand-grenade. They wiped out the garrison and started again over the open. From Pantaloon Ravine a German field-gun battery was firing point-blank at the Highlanders. Without hesitation Canadian machine-gun crews took up vantage points and so harassed the gunners that when the battalion charged they abandoned their guns without a struggle.

The 14th Battalion (Montreal) in their first rush on the left of the attack cleaned up the German outposts in a most thorough manner. In Morgemont Wood an enemy battery of eight guns played havoc with their advance. Three parties volunteered for the job of tackling them, and led by sergeants and corporals they enclosed the wood in the open order they had learned so well early in the summer and wiped out most of the crews. Croat's Trench on the northern end was still holding out and their new position allowed the Montreal men to enfilade it. They not only turned their own guns on it, but also the German pieces they had captured, and in a few moments a white flag was fluttering over the enemy trench. On our men advancing to take their surrender the Huns again opened a withering fire. There was another ding-dong battle of bomb and bayonet along the trench, and the Canadian gunners redoubled their efforts. Two white flags were raised by the enemy, but, in the light of the treachery of a few moments before, no notice could be taken of them and on the final rush the garrison was exterminated.

The 1st Brigade of the 1st Division had been placed as centre of the divisional attack, and the 2nd Battalion (Eastern Ontario) was chosen for the brigade right, with the 4th as companion in the centre. The 3rd (Toronto) was on the left. The Eastern and Central Ontario men managed to get through the German line

with little difficulty, but the Toronto regiment struck a hard snag when they reached Morgemont Wood. They were fighting desperately against a reserve German battalion which had been sheltered underground and, until the Highlanders from another brigade came to their rescue, were in a dangerous position. The wood was finally cleared and the gallant battalion went on further into the fray. On the right the 2nd Battalion pushed on to Happeglène Farm, a German strong point, which they rushed, and then, battling with isolated parties of the German rearguard, which they disposed of or took prisoner, they made a splendid charge across the open which gained them Ignaucourt, a hamlet with stone houses making good defence works for the Germans. Here they got into touch with the Canadians who had won Demuin, and as their casualties had been comparatively light they decided to push on into the Cayeux valley and prepare to capture the town of Cayeux. Unfortunately, by this time the Germans had got their second artillery line into operation, and the hitherto lucky battalion, in spite of hastily dug trenches, suffered heavy casualties.

The 4th Battalion had worked its fighting way up through the centre and got into touch with the 2nd in the Cayeux valley. They, too, had had but slight losses to date and they decided to attack Cayeux from the right flank. After determined attempts they got their grip on the southern end of the town, and while the tired 2nd put on a feint assault the other Ontario fighters charged through the streets and took the defenders by surprise, driving them back with Lewis-gun fire, bayoneting hundreds who resisted, and taking several more hundreds prisoner. The 2nd gained the town shortly after and the two battalions established a safe line on the enemy side of the position. But the capture of Cayeux meant that Caix, an important storage centre of the Germans which they had not completely cleared, was in danger of falling the next day, and all

night long the enemy counter-attacked from Lemaire Wood and from Rousseau Wood further south. The call was sent for help from the tanks, and early next morning the moving fortresses " juggernauted " into these positions, followed by the 2nd Battalion, scattering the gunners and making a safe jumping-off place for the next advance. The 3rd Battalion helped in the capture of Lemaire Wood.

Next day Caix was a Canadian town. The 7th (British Columbia) and 10th (Alberta) Battalions, with the 5th (Western Cavalry) in reserve, made the successful assault with very few casualties. During the night field-guns had been brought up on heavy motor trucks and unloaded at previously selected positions. Under their withering barrage, almost over open sights, the work of the infantry was fairly easy, and when the latter cleaned up the town of the remnants of the garrison there were a few hundred more prisoners sent back to the cages of the 1st Division.

On the morning of August 12th the position of divisions was as follows: the 3rd Division was astride the Roye road, working in close liaison with the French in the vicinity of Folies; the 1st Division in the centre was in front of Rouvroy; while the 2nd was well on the way to Rosières, an important German railway centre.

The Corps Commander had planned a new attack in the direction of the Chaulnes-Roye railway along the embankment, where, air reports stated, a new trench line was being prepared by linking up the old works which had been used in the early days of the war. The 1st Division, with headquarters at Stove Wood, had what might be described as the most difficult ground to cover. The 1st Brigade was chosen for the assault. Early in the afternoon, under cover of hundreds of smoke bombs, the 1st Battalion (Western Ontario) led the attack. After a desperate engagement with a nest of machine guns at the crossing of

the Le Quesnel-Caix road, they rushed forward in splendid fashion, wiping up smaller groups of the enemy, and finally getting into touch with an advanced 4th Division battalion, the 87th (Grenadier Guards of Montreal). They were being badly harassed by a machine-gun battery in the little village of Folies, and, although it was outside their area, two companies of the 1st charged into and cleared the village with less than ten casualties. Continuing on after this very necessary venture, they surprised and captured a German transport convoy and an ambulance outfit with horses, which they sent back with word of their success. But Beaufort, twice cleared of the Germans, was again held by them, and Beaufort was needed if the general advance was to be a success. With the help of the 2nd Battalion, the 1st again took possession, not without heavy street fighting, in which the men from Ontario showed themselves more than the equal of the enemy.

The 2nd Battalion emerged on the eastern side of the town and found the Germans gathering for a counter-attack. Forming into about ten Lewis-gun parties, the Ontario men rushed at the concentration and scattered them, the enemy leaving many dead and twelve heavy machine guns. There was no chance to take prisoners. East of a shattered set of buildings which had been Marmite's Farm, the German artillery got the range of the battalions, but by short rushes the enemy was pressed back into Rouvroy. Two tanks and a squadron of the 11th (Imperial) Hussars, which had been out scattering machine-gun forts, joined their fortunes with the Ontario fighters and attempted to enter the coveted town. They got a grip on the northern part of the place, and the infantry following hastily dug a trench system against which the enemy made two vain counter-attacks.

The 4th Battalion (Central Ontario), which had been in reserve, were brought up and reinforced the

line. They attempted to carry the town from the south, but ran into some newly placed enemy field-guns which by open-sight fire drove them back. Finally these guns were outflanked and the 4th entered into the desperate fighting which gave us Rouvroy. Near the church of this place there is an eminence which commands the main square and the streets that radiate from it. There were terrific encounters before this was gained. The German machine guns even drove back one valiant group of Canadians who were trying to command the position from the roofs of adjacent houses. Finally, by rushing from dwelling to dwelling, the Canadians managed to get their guns into play, and under a withering fire the Germans on the hill broke and fled. Rouvroy was completely ours.

In the meantime the 2nd Brigade were having their experiences. The 14th and 15th Battalions had been lent them to strengthen the unit. The 5th Battalion were on the right and the badly mauled 8th on the left. The former made a wonderfully picturesque charge through a field of full-grown corn in which were half a dozen German machine-gun posts. These they wiped out and swept on in the direction of Warvillers. There was no artillery preparation and the tanks allotted to the attack had not turned up. Just as they attacked Warvillers, the waddling tanks arrived and went straight into the battle. The Germans broke and ran and the battalion pushed on and out into the open beyond the town.

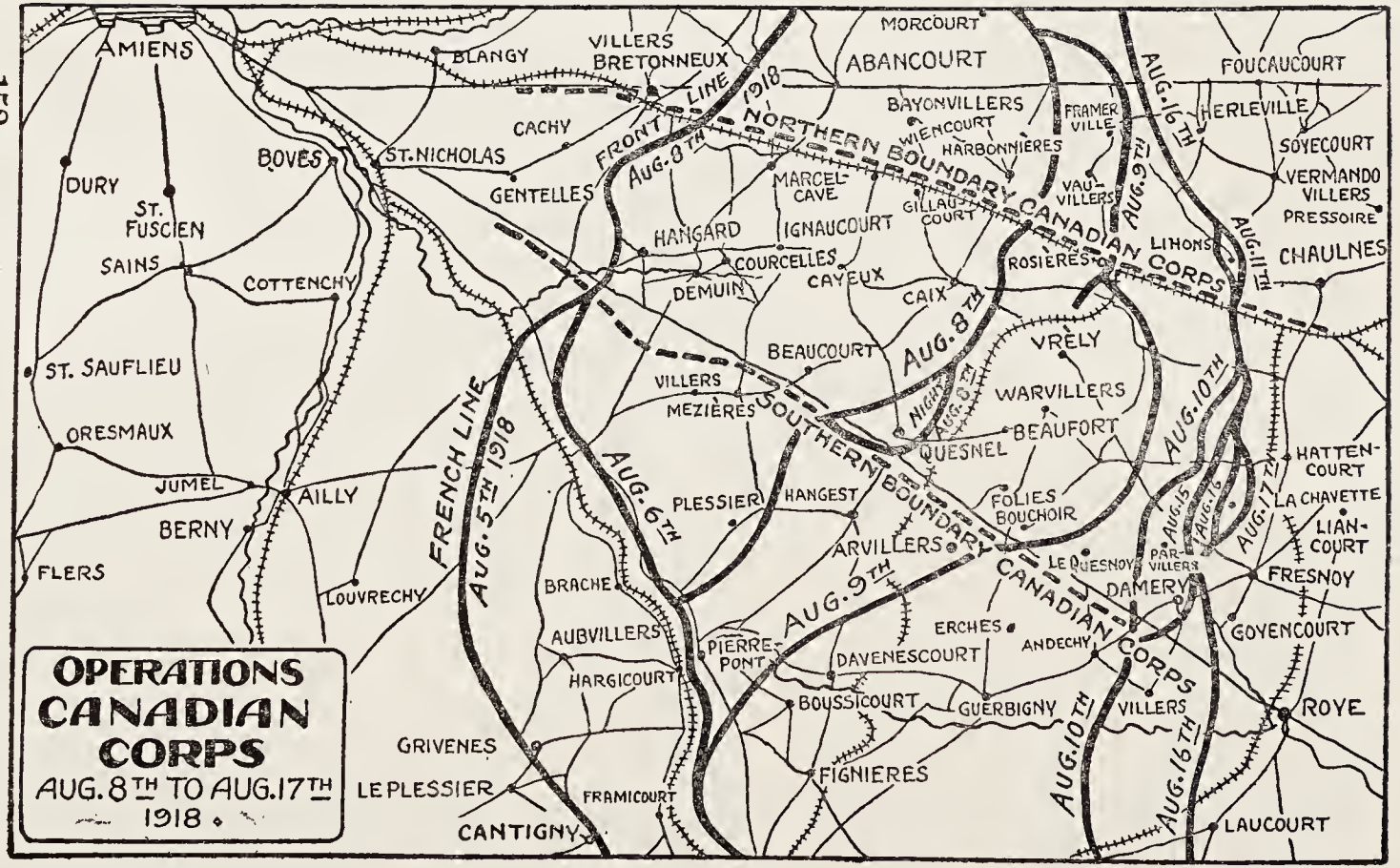
The 8th Battalion's attack was less strenuous. They overwhelmed the first opposition they met with, but soon ran into difficulties. They discovered that the Germans had several gun posts set in depth and the task of taking one after the other would be expensive, if not impossible, for they were in range of all the rest while stalking one. Gradually the "Black Devils," encouraged by their acting commander, who was after-

wards killed while leading one section of his men, spread out and, taking cover in the corn or what safety they could find in buildings or ditches, rushed the batteries one by one. The 14th Battalion came on a few hundred yards behind and were able to help the Western men consolidate and hold the line for the night.

In the battles they were engaged in from August 8th to August 24th the 1st Division casualties were: Killed, officers 38, other ranks 503; wounded, officers 132, other ranks 2,550; missing, 95 other ranks. This is a total of 170 officers and 3,148 other ranks. The 8th Battalion was the heaviest loser in the division, but it went through some of the most terrific fighting in the Amiens show.

As for the happenings on the rest of the front, it may be mentioned that the French, although late, had gained touch with the Canadians close to Le Quesnel. The Australians had met with great difficulties along the winding banks of the Somme, but they kept contact with the Canadian 2nd Division and were fighting-full of spirit. Their left division were up to schedule and sweeping that northern part of the old-time Somme battlefield which they had once before conquered so gallantly.

When dawn of the second day, August 9th, broke, it found the Canadian divisions considerably shifted around. How such matters are done is marvellous at such a critical time, but many worn-out battalions were enabled to rest, artillery was moved up to advanced positions, thousands of railway troops were repairing shell-wracked lines, and telephone wires were carefully buried ready for the German counter-attack, which did not come until too late. The 4th Division passed up through the 3rd to the Cayeux-Mézières road. Lieut.-General Currie moved his headquarters to a quarry near Demuin. The quarry made a safe place for the busy general staff, but its dug-


AMIENS
BLANGY
VILLERS BRETONNEUX
MORCOURT
ABANCOURT
FOUCAUCOURT
FRONT LINE 1918
AUG. 8TH
NORTHERN BOUNDARY
CANADIAN CORPS
AUG. 9TH
AUG. 16TH
HERLEVILLE
SOYECOURT
VERMANDO VILLERS
PRESSOIRE
CHAULNES
BAYONVILLERS
WIENCOURT
HARBONNIERES
FRAMERVILLE
CACHY
BOVES
ST. NICHOLAS
DURY
ST. FUSCIEN
GENTELLES
MARCEL CAVE
VAUVILLERS
GILLAUCOURT
HANGARD
IGNAUCOURT
COURCELLES
ROSIERES
LIHONS
AUG. 11TH
SAINS
COTTENCHY
DEMUIN
CAYEUX
CAIX
ST. SAUFLIEU
BEAUCOURT
AUG. 8TH
VRELY
VILLERS MEZIERES
SOUTHERN BOUNDARY
NIGHT AUG. 8TH
WARVILLERS
AUG. 10TH
ORESMAUX
QUESNEL
BEAUFORT
HATTENCOURT
JUMEL
AILLY
FRENCH LINE
AUG. 5TH 1918
AUG. 6TH
PLESSIER
HANGEST
FOLIES BOUCHOIR
AUG. 15
AUG. 16
AUG. 17TH
LA CHAVETTE
LIANCOURT
BERNY
ARVILLERS
LE QUESNOY
PARVILLERS
FRESNOY
FLERS
LOUVRECHY
BRACHE
AUG. 9TH
CANADIAN CORPS
DAMERY
AUBVILLERS
ERCHES
ANDECHY
GOYENCOURT
PIERREPONT
DAVENESCOURT
HARGICOURT
BOUSSICOURT
GUERBIGNY
VILLERS
ROYE
AUG. 10TH
AUG. 16TH
GRIVENES
LE PLESSIER
FIGNIERES
FRAMICOURT
CANTIGNY
LAUCOURT
OPERATIONS
CANADIAN
CORPS
AUG. 8TH TO AUG. 17TH
1918

outs and tents were far from comfortable. "Why not the village?" asked his officers. Demuin had been a German divisional headquarters and in it there were comfortable billets. It was practically unharmed. They knew the reason a few hours later, when the enemy had hurried up new guns. The German artillery staff argued that the village would be a Canadian headquarters and razed it to the ground. The Corps Staff watched the strafe from comfortable safety.

August 8th and the morning of the 9th had been glorious days. The Canadians, with one exception, were everywhere beyond their objectives. According to General Currie's report, the enemy were almost back on the old first line at Ham. All important positions, with the exception of Le Quesnel on the Roye road, had been taken. Generally it was an eight-mile penetration of the German lines. The attack had swept through all reserve trenches and was now spread out in an open country, so far back that the fields were tilled and many of the peasants were living very much as in pre-war days. The villages which had been captured were all small prosperous farmers' centres, with here and there some industry and factory. They included Hangard, Demuin, Beaufort, Aubercourt, Cayeux, Courcelles, Ignaucourt, Caix, Marcelcave, Wiencourt, L'Equipée, Guillaucourt, and Mézières. Most of them had been used as reserve billets by the Germans and there were but few French inhabitants rescued. Later, in Le Quesnel and Rosières, there were rather more who had returned to their homes after the former German advance and had fields tilled and houses thriftily mended.

The 4th Division followed up the thrust of the 3rd Division, keeping just behind it from the commencement of the attack on August 8th. At times they sent machine-gun sections forward with the tanks, but their real turn came when the Germans were driven out of Le Quesnel. Major-General Sir David Watson in his

terse report describes the actions and movements of his unit from early in the attack, when they lined up just short of the Mézières-Cayeux road. The 11th Brigade was on the right, the 12th on the left, and the 10th in centre reserve.

"Before our infantry jumped off," states the report, "the tanks, cavalry and motor machine guns had gone through, making for the old Amiens Defence Line of pre-Somme days. We had little artillery support, the guns for the time being having shot themselves out. A few batteries followed us along. The first real opposition came from Beaucourt village, but this was overcome and the advance continued to Beaucourt Wood, where very heavy machine-gun fire held up both brigades. A very gallant infantry attack cleared the situation and the line again went forward. The 12th Brigade had heavy fighting before they reached the 'Blue Dotted Line,' the second objective.

"On the right the enemy was making a desperate stand at Le Quesnel and the fact that the French were not up abreast of us made the situation more difficult. Before morning, but not without some serious fighting, the village was firmly held by the division and the final objective was in our hands. The division took the forward line from the 3rd Division and carried it forward a distance of 6,000 yards on a 7,000 yard front."

It was open warfare with a vengeance. Le Quesnel was taken just before midnight. Tanks — snappy little whippets — and cavalry had got foothold in the afternoon, but were driven out at dusk. In the dark night they attacked again and the strong little French village, with its large, quaint stone cathedral, now a German fortress, became permanently ours. It was a necessary victory, for the French advance to the left of the town was delayed. Six-inch trench mortars mounted on trucks were brought into action and were the deciding factor, lobbing their heavy explosive

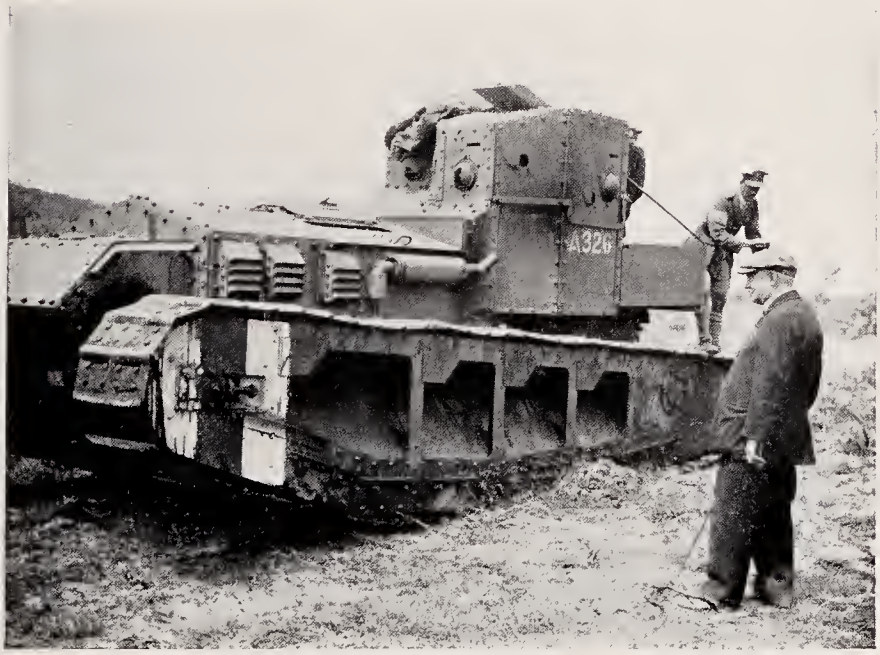
shells over the hill, and finally forcing the surrender of the badly battered remnants of a reserve German Brigade. The line was complete with the fall of Le Quesnel. Six thousand prisoners had been taken — more than our own casualties. Over one hundred large guns were captured, thousands of machine guns and trench mortars and immense engineers' stores and reserve ammunition parks were in our hands, undamaged and undestroyed, showing how disorganized the enemy had become. Sixteen German divisions had been counted on that day — eight of them had been against the Canadians' driving corps.

Roughly the line now ran from Villers-Bretonneux along to the river Luce, then direct south to Le Quesnel, and the Roye road, which the Romans had originally built to assist in conquering the Gauls. But the heavier and more dangerous fighting was to come, and with the morning light of August 9th the Canadian divisions were again plunged into the attack. The fresh 4th Division took over Le Quesnel and held it in strength until late in the afternoon the French came up and made it their connecting link. Every smiling, red brick hamlet ahead, every little wooded knoll with which the country is studded, had become a German machine-gun redoubt. The weather remained fine and another misty morning helped the infantry in their jump-off. The hard-battling 3rd Division, which had been in reserve during the night, passed through along the Roye road, then swept northward across the plains, following the lead of the cavalry and tanks. As yet there was comparatively little enemy shelling. Beaufort's German garrison, armed with a battery of the new tank guns, some small howitzers, and half a score machine guns, put up a desperate resistance, and it was impossible to outflank, as the French were having terrific opposition at Hangest-en-Santerre. It developed later that the Canadian and Allied attack here met the first German counter-attack to regain

some lost ground, especially the hill at Le Quesnel. But the 3rd Division, which up to this time had the record of the battle for smashing, stubborn resistance, pressed on in magnificent fashion, storming Bouchoir, Rouvroy, and Meharicourt in turn, fighting pitched battles with fresh German divisions which were attempting to form a stable line for the enemy. Late that afternoon the indomitable men of the Mounted Rifles, the Princess Pats, the 42nd (Montreal), and the Royal Canadian Regiment had spread laterally over a five-mile front and had gained another three and a half miles of the Germans' hastily built trenches and posts.

Ten snappy whippet tanks barked around the hill at Le Quesnel that evening and went into the affray. They carried extra crews in the shape of Canadian machine gunners, and a few of these were dropped in the vantage points picked out from the undulating ploughed fields. Then from the cover of a wood the German tank guns found the range over open sights and one by one the whippets were maimed, rolling over on their sides like sorely-smitten gladiators of old. Some of them were blazing, making gruesome red streaks in the yellow rays of the evening sun. Those of their crews who could, fled to shelter, but many wounded were lying half-burned in the stubble. For a time it looked like a bad setback, but suddenly, through a dip in the rolling ground, thundered up four of the ponderous father tanks. They caught the Germans on their flank and, before the enemy could turn, their larger guns spitted death in 3-inch high explosives and speedily put the tank guns out of action. Like some big liner rescuing the crew of a cockleshell boat at sea, each turned in front of the disabled guns, ignoring the pattering machine-gun bullets that hit their sides, and veered to " windward " of the crippled whippets. Under their shelter they rescued those of the crews who were still alive, and then, with

A WHIPPET TANK RETURNING FROM BATTLE



PREMIER OF NEWFOUNDLAND EXAMINING A WHIPPET TANK
Canadian Official Photographs

the 4th Division infantry, they attacked the wood in force and wiped out the garrison, even getting a grip on Beaufort itself.

At daylight, after a dashing charge through barbed wire to relieve an outflanking movement on the French, the Canadian cavalry whirled off "into the blue." It was their job, if possible, to ride north and reach and cut the railway line behind Rosières, five miles away. That night a mammoth 12-inch railway howitzer, which was pounding the Canadians' lines of communication, had been located there. Not without many minor adventures, the Canadian horsemen drove on, breaking up small groups of Germans and chasing them back, with the aid of machine-gun bullets, to where the infantry found them, terrified, but willing prisoners. The horsemen charged into the big railway town, expecting furious resistance, but the garrison was taken completely by surprise. Even the German brigadier, awed by the flashing sabres, surrendered without the usual bluster. The cavalry dash was daring and dangerous, — there were thousands of the foe behind them, — but it won. The Fort Garrys galloped ahead in time to blow up the big gun spur. The crew fled up the line, vainly trying to stop a train-load of reinforcements which were being rushed up. The panic-stricken engineer put on speed, dashed madly on, and did not stop until in the midst of the Fort Garrys and the 6th Brigade of Canadian infantry of the 2nd Division, who swarmed round the cars and took all — twenty-eight officers and over five hundred men — prisoner.

Down the line came another train, which the cavalry surrounded. It was a brand new German hospital train, fully equipped with doctors and nurses, and the German doctor in command threatened dire vengeance if the Canadians did not let him at once get back to his own lines.

"We shall be immediately returned to our army

according to the rules of war,'' he declared, Teutonically.

'' Too late,'' answered the cavalry major. '' Listen to that.''

Four dull explosions told him that a squadron of the Strathconas had blown up the main line. Afterwards a wise British Intelligence Department hustled the doctors and nurses back past hundreds of prisoners' cages and captured guns, innocently showed them how complete had been the Allied victory, shipped them to Holland via Dover, and in two weeks they were at home telling the story of German defeat.

It would be impossible to describe half the magnificent deeds of the Canadian infantry in that open fighting of August 10th and 11th. Nearly three thousand decorations and mentions were won in those momentous days. Valour and heroism, splendid discipline, the finest the writer has observed in any Canadian battle, were shown on every hand, and in desperate encounters at close grips Canadian manhood proved itself complete master of the Teuton. Something like twelve Victoria Crosses were won in those few days and over a score went to Canada's troops in the last hundred days.

Take the case of a young subaltern in a Manitoba battalion. His section had been badly checked by terrific fire from a concealed machine gun. His men were wavering at the shock, but the young officer, formerly a farmer, grabbing a rifle and bayonet and two or three grenades from a wounded man, dashed forward, dropping to cover as the bursts of fire were poured on him, finally gaining the rear of the gun just as it was lowered on its little rope elevator to be repaired. He waited patiently until the creaking carriage came up and then, with bomb and bayonet, wiped out the crew of three. Inspired by his example, the rest of the battalion rushed the position and took twelve other guns. Later, the same officer, although mortally wounded by

a shell splinter, crawled to the top of a parapet and directed his men until he died.

A corporal of the 24th Battalion (Montreal) charged forward alone into a battery pit containing three German machine guns near Vrely, killed three of the garrison, and the rest immediately surrendered to him. He marched five of them back to his battalion and delivered them to the colonel. In a later scrap, while scouting, he discovered a battery of German 5.9-inch howitzers just getting into position. With three of his scouts, he drove at the busy gunners, catching them off the alert as they were about to fire their first shot. All but two of the enemy were killed or wounded, and then the corporal sent a runner back to report to the colonel that the battery was captured.

On the second day at Warvillers, which had been a German corps headquarters, men of the 21st Battalion (Eastern Ontario) worked their fighting way down a huge dug-out which had been the corps signal station and telephone exchange. Just in the nick of time they caught several Germans mining the place and placing explosive tubes among the tangle of wires. Half an hour later the Canadian signallers were up and joining the valuable telephone system to the Canadian wires which came along with our advancing infantry.

They were hard men to beat, with the flush of what they knew to be their greatest victory on their brows, but there were many grim fights in these underground shelters during the second and third days. Such towns as Vrely, Rouvroy, and Bouchoir were honeycombed with tunnels sheltering hundreds of the enemy. It was part of an old defence system which the Germans, on account of shortage of labour, had never completed. Many of them had the old effective disappearing platform to carry machine guns, and these positions were expensive to the assaulting Canadians. But officers, sergeants, and men had all been specially

trained for this tricky, open fighting which the smaller towns of the Picardy plains afforded. There were none of the old frontal attacks of the Lens and Vimy days, and our losses for the gains we made were not unduly heavy.

On August 12th the Canadian cavalry ran into a sanguinary fight along the Meharicourt-Fouquescourt road in an attempt to stampede the enemy in the latter village. They had just reached the crucifix which marks the entrance to the village proper, having scattered several large groups of the enemy, when a tornado of fire from concealed machine guns swept them. Their casualties were severe, but the survivors retired bravely, fighting a rearguard engagement, even firing their machine guns from the backs of their horses. Much to the surprise of the 14th Battalion, who were helpless witnesses, the Germans followed up their success, bringing their machine guns forward and making a determined counter-attack, aimed to drive back the Montreal battalion. For a few moments it looked as if the new line would be pierced, but at a critical period four whippet tanks ambled up to where the Germans had established posts in the high growth of a corn-field and cleaned up the majority. When the enemy recovered, the Canadians were ready for any attack they might put over; but the seriousness of the situation had been realized.

The 13th Battalion (Royal Highlanders of Canada) also had a narrow escape a few days later, when it seemed inevitable that they would be either annihilated or the majority captured. By sheer pluck they won their way back to the main Canadian line, but not without severe losses, although they took full toll from the Germans who outflanked them. By a daring daylight charge, they rushed a complicated system of trenches at La Chavette, almost within striking distance of the Chaulnes-Montdidier railway, over which the enemy were still rushing back their supplies. The

venture was so successful that the kilties whirled on through a maze of communication trenches for another four hundred yards, actually gaining a foothold in the Fresnoy-Hattencourt trench system, where the enemy were collecting for a big counter-attack. Seeing their hopeless position, they sent back for aid, but the messenger returned reporting that the Germans were again in force in the trenches behind them. The Highlanders started the fight for freedom where troops might have reasonably surrendered. They had come upon a large German dump of hand-grenades, and with these and what was left of their own ammunition, combined with the grit they had shown in other battles, they hacked their way clean through a fresh German regiment, luckily with few casualties, and even bringing back some of the prisoners they had taken. This decided the brigade commander, and he immediately set to work to dig in against possible attack. It never came, for the German line was broken in another sector.

The battle for Rouvroy, one of the centres the Germans particularly valued, was another engagement which showed the wonderful determination and fighting qualities of the Canadians, even after three hard days of fighting. The 1st Brigade attempted to rush the town late on the afternoon of August 12th. The 2nd Battalion managed to get into the outskirts to the left and held on grimly until a section of the 3rd came to its assistance. The street fighting was terrific, and afterwards it was found that a German Imperial Guards regiment had been thrown into the scrimmage to hold the town as long as possible. The 1st and 4th Battalions were sent to the rescue, for the line was advancing to the right, but the Germans, too, had been reinforced, and it was impossible to penetrate the village, owing to the strength of the enemy. By night, however, these grim fighters did manage to get through the right side of the town and connect up with

the 3rd Division, which had come up east of Folies. The line was then intact and it was merely a question of time before Rouvroy would be encircled.

It is impossible to tell the wonderful adventures of every battalion, for even at this late time of writing, not all the battalion histories, so well kept in days of stress, are available. But one must remember the Canadian Corps motto, " One for all and all for one," and take the wonderful stories of undaunted courage given here as applying to many, many battalions. The famous " Little Black Devils " (8th Battalion) jumped through when their division leap-frogged the tired 3rd near Beaufort, where the Germans were showing the most desperate stubbornness. Their commander had been killed at Hatchett Wood, in which the Germans were at full strength, and they wanted revenge. Time after time the men of the " Black Devils " ploughed into the tangled wire and nests of machine guns which defended the copse. It was a strategical point and needed to be taken, and they meant to take it. Every time they were driven back by sheer weight of numbers and by concentrated fire, — from men wounded early in the battle the Germans had found out that it was a celebrated battalion that was pressing them, — but they plugged at it and by clever scouting and stalking and an encircling movement they finally reached the main batteries of guns. Some of the grimmest hand-to-hand fighting that had taken place up to this time followed. The crews of all those guns were exterminated. Three hundred prisoners were sent back to the Canadian cages — broken, beaten, frightened men, who declared they had been fighting against Indians and not white men. The 8th lost heavily again and the battalion report estimates their casualties up to this time at over three hundred. Nothing daunted, the battalion continued progress and finally, east of the Meharicourt-Rouvroy road, they gained touch with the 5th Battalion and the Ca-

nadian line was again joined up. All through the night they kept harassing the enemy, never allowing him to concentrate for counter-attacks. On their forays they were accompanied by boon comrades, sections from the Imperial 9th Lancers and daring whippet crews. They saw one of the whippets set on fire and the crew about to fall into the hands of the enemy, but with a mad dash they scattered the Germans and brought back the little crew to British ground. Later, badly mauled, but with spirits as unbroken as when they swung into battle on August 8th, the " Black Devils " were sent back to rest at Warvillers, thence to go into quiet areas and refit and reinforce. Their total losses had been fifteen officers and four hundred and twenty other ranks.

The 10th Battalion (Alberta) were fighting hard to gain a position about one thousand yards north-west of Caix, on the Amiens-Chaulnes railway, when about midday they were badly harassed by machine-gun fire. A corporal took a small party and stalked away on the flank of one battery of three guns and captured or killed all the crews. The prisoners were sent back to battalion lines after signals had been made, unescorted and unguarded except that the versatile corporal had one of their own guns trained on them and gave them a few bursts to hurry them on their way. Another corporal led a patrol of eight men with one Lewis gun against fifty Germans and six heavy machine guns. The German post was in a sunken road with excellent cover. It was rushed by the Canadian non-com. and his comrades, bombed into submission in twenty minutes, and then thirty prisoners and six new machine guns were brought in. These incidents make it easy to understand how the attack was carried forward nine miles in nine hours.

A sergeant of the 5th Battalion leading his platoon, which was protecting the right flank, realized suddenly that a gap had occurred and that the Germans

with machine guns were enfilading his comrades at close range. He rushed forward, two hundred yards ahead of his party, scrambled helter-skelter up the machine-gun emplacement, shot the German officer who was directing the fire, and threw a bomb in the midst of the crew, wounding five. The rest found safety in flight. The same sergeant, later in the day, was scouting with a large patrol far ahead of the regular infantry advance. Suddenly, through the smoke cloud they were raising to mask their main attack, a large tank loomed up and, taking the patrol for Germans, began firing at them point-blank. The sergeant crawled close up to the movable fortress, which was still spitting fire at the Canadians, managed to signal to it the fatal mistake, and then directed it to an enemy strong point. He went forward to a mound from where he could get direct observation and signalled back fire direction to his own battalion. The plucky fellow was knocked senseless by the bursting of a shell, but recovered in a few minutes and started away with his platoon into the attack at Warvillers.

Before a summary of the days of glorious victory at Amiens can be completed, there are four other units whose deeds must be chronicled. The Engineers, the Canadian Army Medical Corps, the Railway Construction Battalions, and the Pioneers.

Amiens had been a miniature Chicago for the cattle and the rich products of the Picardy farmers and had, moreover, the quickest and best-constructed means of communication between the English Channel and Paris, and was the keystone of the arch that linked the British and French armies. It invited the attention of the enemy, and the section nearest the German positions, which contained the main line and the city's fine freight yards with scores of miles of tracks, had been subjected to severe bombing and was completely destroyed. The main line from Calais to Paris, which ran through the city in deep rock cuttings, was badly

smashed, but quiet work by the Canadian railway troops, Brigadier-General "Jack" Stewart's command, under camouflage, made it comparatively an easy matter on the night of August 8th to complete a solid standard single-track line with a loop out to Longueau between the rivers Somme and Avre. Here were large sidings less damaged. From Longueau a double-track line originally ran south to Montdidier — this was left to the French engineers. The north line ran through Villers-Bretonneux and Chaulnes to Peronne. It was the strategic line for the Canadians to use in following up the German retreat. Ten thousand prisoners and the Canadian Railway Construction troops were put on night and day shifts, repairing the road-bed and patching up the shell-broken rails. By afternoon of August 9th a single line was running into Villers-Bretonneux, a distance of seven miles. That night's supplies were brought to a station on the plain from which radiated good roads, barely scratched by shells, to all our divisional ammunition and food dumps. That was not the end of the work of the Construction Corps. Clamorous German prisoners declared that their rights were being abused and that they were within the twenty-mile limit of the fighting; it was hard to make them credit the wholesale retreat of the Huns. They mutinied, out on the level ground beyond Villers-Bretonneux, and the railway men who had been trained to fight as well as construct — and destroy — abandoned the peevy and the pick for rifle and machine gun. They quelled their own mutiny without having to ask aid of the fighting corps.

From where the line passes through Wiencourt, the German retreat had been slower and the enemy had time to set masked, deferred mines on the road-bed which were due to blow up any time in from three to five days. By sheer luck, or by experience gained in other German retreats, the railway engineers dis-

covered some of them, and the remainder of the line, which finally reached Rosières, in all nearly twenty miles out from Amiens, was built across the fields. It was a godsend on which to bring up the heavy guns and ammunition, relieving the roads, and also to take back the badly wounded to comfort in well-appointed ambulance trains. Spreading out mushroom-like, thin little narrow-gauge lines wound round the knolls that dotted the plains and crossed the creeks on wooden trestles that were built by British Columbian men who knew their jobs. These lines were joined up with Canadian batteries on the third day just when the enemy was getting his new artillery into position and beginning to annoy our forces. It must be mentioned, too, that the Railway Construction troops built the foundations for the heavy guns and restored smashed German dug-outs for the infantry back in relief.

The Canadian Engineers, who were in command of Brigadier-General W. B. Lindsay, assisted by the three pioneer battalions, with whom they had trained during the " rest period," showed their mettle from the very start. Their famous rock fill of the main crossing of the river Luce has already been mentioned. On the second day of the battle they had five ready-made steel bridges in place across the lively little river, so that there were alternative routes by which the huge traffic, inevitable in the case of a battle fought on an immense scale, could travel. Close up to the line they went as the advance was pressed, and so complete was their search for enemy traps and mines that in no single instance, as far as recorded, was there a Canadian life lost by explosion. In some of the larger wrecked towns they quickly built huts for the advanced medical dressing stations, and always they were improving the infantry's defences by digging trenches and repairing old German redoubts to be ready if serious counter-attacks were successful.

Open warfare brings as complete a difference in system to the Army Medical Corps as it does to the infantry. In trench time there used to be neat little whitewashed dug-outs for dressing stations, where light and comfort would give hope even to those mangled men whom the doctors knew were past mortal aid. Some of the battalion ambulance stations had to move forward with their units no less than five times in one day, but everywhere there was that note of efficiency, whether in shattered churches or houses or in abandoned German hospitals, of which there were fortunately many. The flat fields at the front, later the network of light railways that seemed to have spun their web everywhere across the plain, and the main roads, undamaged by either the second Canadian attack or the retreating foe, eased the journey of the Canadian wounded. It was all as if it had been planned. Field ambulances that had grown rusty for lack of use in the old days of trench fighting, but had been kept in workable order, came into their own again. Fine clearing stations where lightly wounded were treated were built. Returning ordnance trucks brought down hundreds of the wounded men to the base hospitals. They were a happy lot on the whole and the joyous message of victory they carried to their comrades in hospital spread to the thousands that worked behind the line.

By August 10th and 11th the German defences had been considerably stiffened and all traces of the disorganization of rout had disappeared. The Canadians' task was getting more difficult. Reinforcements had come up in fine fashion, but the lucky troops which had driven through to such complete success were battle-worn, though there was plenty of fight still left in them.

On the night of August 9th–10th the 3rd Division was relieved by the 32nd (Imperial) Division, which

was put under Canadian Corps command. The Imperials immediately went into the attack and carried the line on to Damery and Parvillers astride the Roye road, making one of those side-slipping attacks which once before had disconcerted the German defence, gaining something over three miles. On August 10th the 4th Division, which had been used but lightly, took over while the 1st and 2nd Divisions had a chance to rest in the comparative quiet of the reserve. Major-General Sir David Watson's men also went straight into the fight, their officers having had careful preparation in reconnoitring the ground. The 10th Brigade, under Brigadier-General R. J. F. Hayter, captured Fouquescourt, where the Germans put up desperate resistance, having an extra reserve regiment at hand. The 12th Brigade, commanded by Brigadier-General J. H. MacBrien, stormed Maucourt in a daylight charge, and fighting on through Chilly, which they captured, drove still further and attempted to gain Hallu, an important railway point which the Germans were using up to the last moment. They won their way to the yard in which stores were still being hastily loaded by the enemy, but at night, in the face of terrific counter-attacks, were compelled to retire to Chilly, where their line had been consolidated.

General Sir Arthur Currie, in his report on conditions on the morning of August 11th, best explains the position. He said in part: "The situation had changed materially. I suggested rather than expose the Canadian Corps to losses without adequate results against the old trench system, which was now reached, the corps should be withdrawn and used in another surprise attack in the direction of Bapaume. We were sent further north to the Arras front."

The Canadian Commander's short special order gives an excellent idea of what had been done in the four days. "The Canadian Corps," he stated, "has every right to feel more than proud of the part it

has played. To move from the Arras front in less than a week and plunge into a great battle so many miles distant is, in itself, a splendid performance.''

He added that no fewer than fifteen German divisions, including reserves, had been identified as opposing them. Over one hundred and fifty large guns had been captured, over one thousand machine guns, and twenty-five towns and villages had been taken. Nearly ten thousand prisoners were in the hands of the Canadians. The Amiens-Paris railway had been freed and the danger of dividing the French and British armies dissipated. Canada's implicit confidence in her army, he said, had been nobly justified.

On the night of August 11th the rested 3rd Division took another turn in the fighting line. It relieved the 32nd (Imperial) Division, which had been badly mauled, but had captured some of the Germans' strongest points on the south end of the Canadian sector and had assisted the French in no small measure, helping them to capture Andechy. There were signs to those who watched that Marshal Foch was thinning out his divisions, — well content, — ready to go on with his soon-to-be-successful thrust in the Argonne and at Château Thierry with the American troops who had already attacked.

The enemy in great strength had driven in our outposts at Damery and had fortified the town in such a way that frontal attack was impossible. Great preparations were made for assaulting the enemy position, and it was not until the night of August 14th–15th that plans were complete. The 7th Brigade worked its way by hard fighting with bomb and bayonet until it had outflanked Parvillers on right and left. Some of the heaviest Canadian shells were rained on this town and on Damery, the railway troops working three eight-hour shifts to get the big howitzers close up on their special spurs. The garrison, with the village sur-

rounded, gave in, and eight hundred unwounded were sent back to the cages.

By another desperate charge on a long ridge, which commanded a section of our system, was the key to Damery's strength, and was retarding the French advance, the 9th Brigade gained the crest and dug themselves in so securely that they withstood four determined counter-attacks by the Germans and in the morning nearly a thousand enemy dead were counted in front of the new line. This ridge relieved the French of a flanking menace, and soon after daylight the *poilus* dashed forward and became possessors of Zed Wood, an isolated, well-covered knoll that controlled the greater part of the Roye-Chaulnes defence system, newly built by the Germans.

To August 16th, the 3rd Division had taken over three thousand prisoners of all ranks, including 8 regimental commanders, 44 heavy guns and howitzers, 37 trench mortars, and 214 machine guns. The division's casualties had been: killed, 25 officers, 346 other ranks; wounded, 64 officers, 1,576 other ranks; and missing, 3 officers and 150 other ranks.

So the battle went on. On the left the 2nd Division relieved the 4th Division on August 19th. There was considerable straightening of the line done by Watson's men, but later they were to have a further share of heavy fighting in the Amiens battle. They recaptured and held their old position at Hallu. The 4th and 5th Brigades — Ontario, Quebec, and Nova Scotia battalions — pressed the enemy still further back on the next day beyond Fransart, barely touching the Roye-Chaulnes railway, on which the German depended for his main defence. They were relieved by a French division. Already another long and rapid trek to fresh adventure had been started. The movement was done as quietly and effectively as was the " camouflage " descent from the north. The divisions were going back to Arras.

It was on August 22nd that General Currie handed over the command of the Canadian Corps front. At ten o'clock that same day he had established his headquarters at Hautecloque, near Arras.

According to the official report the Canadian Corps and their Canadian auxiliaries had fought against fifteen German divisions, — Ludendorff, in his published narrative, admits sending five fresh divisions in against them, — and of these ten were directly engaged and thoroughly defeated, prisoners being captured from nearly every one of their battalions. The five other divisions, fighting astride our flanks with Australians and French, were only partly engaged. The corps had captured 9,131 prisoners, 190 guns, and thousands of machine guns and trench mortars. The greatest depth penetrated was just over fourteen miles, with an area of over sixty-seven square miles.

The Canadian official casualties in the fourteen days of heavy fighting were: —

	OFFICERS	MEN
Killed in action	126	1,688
Missing	9	436
Wounded	444	8,659
Total	579	10,783

When the Canadians left the Amiens front, the battle was still in full swing. On August 21st the British Third Army made a heavy local attack north of the river Somme and on August 24th opened up their great battle for Bapaume.

CHAPTER VII

BREAKING THE DROCOURT-QUEANT LINE

CANADA'S triumphant advance on the Amiens front had not been equalled by any other Allied or enemy corps, and when the scarred divisions from across the Atlantic were moved out in the week following August 20th, men and officers alike were proud, keen, and on their mettle. Many staunch comrades were missing, but the reinforcements were of the finest and the waiting units which division after division picked up as they passed through Amiens brought the victors of the new Somme again up to full strength. Most of the reinforcements in their schools near Montreuil had been through the severe training necessary to open fighting. Others were veterans, with that wonderful battalion spirit still strong, back to join their own again after slight wounds. Not a word of criticism was uttered regarding the draft men, who were in large numbers; they, too, had proved their breed and skill in active training. Most of them had seen service in the line at Arras before the trek south in August.

Signs were not wanting that the German armies were in an uncomfortable position on the western front. A few short weeks had completely changed the complexion of the war. Especially were they embarrassed in the Lys sector, north of Arras, where Canada had matched arms with them once before. On the Somme they were still retiring before the pressure of British divisions, already imbued with the spirit of "final victory in 1918." In the Argonne, French

and Americans had the German line bending almost to the breaking point. Montdidier and Roye had been recaptured by the French, but as yet there had been no decisive defeat like that of Amiens.

"The German armies," says an analysis by General Currie, "had been impressed in the course of these [Amiens] operations by the superiority of our generalship and of our organization, and by the great determination of our troops and subordinate commanders."

The task allotted to the Canadians — it was not kept secret on this occasion — was to break the Hindenburg Line and, if possible, to capture Cambrai. Really a greater result was hoped for in the complete extinction of the world-famous Hindenburg system and the forcing of the German leaders, who wished to still conserve their armies behind these scientific defences, which it had taken years to perfect, into open warfare. Twice before the Hindenburg trenches had been pierced, but these were mere episodes to what was now planned.

Explaining the plan of attack to war correspondents, a high officer of British Intelligence exclaimed of the Canadians: "If mortals can turn the trick, those men will."

The transfer of the Canadian Corps was again carried out with machine-like precision. The 2nd and 3rd Divisions entrained and embussed in the Boves area on the night of August 19th and 20th. They were detrained in the Bouquemaison area, whence they marched to Etrun and Hermaville areas, old stamping ground of the Canadians. On the nights of August 22nd-23rd and 23rd-24th, the 2nd Division passed into the trench line, relieving the 15th (Imperial) Division in the section known as Neuville Vitasse-Telegraph Hill. On the night of August 23rd-24th the 3rd Division came into the line, holding from the Arras-Cambrai road to the Scarpe river. After this operation

General Currie took supreme command of the operations, having at his disposal two very fine Imperial divisions. On August 25th the 1st Division detrained at Tincques, Savy, and Aubigny, another old Canatian centre, but the 4th, which had been fighting up to the last moment on the old Somme Line, arrived ready for action only on August 28th. Quickly, silently, and efficiently each of these spear-head divisions had been refitted and reinforced.

The far-seeing Marshal Foch had arranged that during their period of intensive training each Canadian division should have a term in those very trenches they now ominously occupied. No Man's Land was no stranger to them and they had grimly stood the punishment given the back areas when they were previously at Arras, through the Germans having such excellent observation from Monchy-le-Preux and Orange Hill. Nothing would suit their spirit better now than the opportunity to drive the enemy from both.

Cambrai was to be a final objective. That much was known to the amateur strategists. How a frontal attack on the Hindenburg system was to affect Cambrai was a problem they could not solve. But astonishing things had been done on the Somme and the fighting men from overseas had learned, through many strange moves at Amiens, to place confidence in their leader.

The success of the attack depended on the Drocourt-Quéant end of the Hindenburg system first being wiped out, for once before when Cambrai had been threatened this was the system that allowed the Germans, behind what they regarded as impregnable positions, to recuperate and counter-attack with success.

Originally the assault was to have commenced on Sunday, but sentiment and the practical necessity for added time in settling down allowed postponement until Monday, August 26th. Once, many months be-

fore, the Canadians had made a desperate attack at St. Eloi on a Sunday and the failure had been costly. Orange Hill, a dominating eminence fronting Monchy, was to be the first objective. The country around laid itself open to defence rather than attack and was composed of ravines, ridges, rivers, and canals. The British Intelligence knew of immense tunnel systems connecting the various trenches. The trenches themselves were protected by hundred-yard strips of barbed wire which aeroplane pictures showed to be intact at every possible vulnerable spot. Concrete machine-gun posts were dotted over the landscape at favourable points. There was not a private who did not know the difficult lay of the land, but there was no dubious comment, and they were a cheery crowd that made ready for what they knew was going to be another great military adventure.

The four lines, or, to be strictly correct, five, of German defence which must be mastered to make victory complete were the old German front system east of Monchy-le-Preux, the Fresnes-Rouvroy Line, the Drocourt-Quéant switch, and, if possible, the line made by the uncompleted Canal du Nord. The Drocourt switch was a double system of trenches.

The 2nd Division had the right section of the assault, from Neuville Vitasse to the Arras-Cambrai road. It was familiar ground to General Burstall's men, having been held by them for three months during the summer of 1917 and afterwards lost by Imperial troops. This division had the XVIII Corps of the Third Army on their right.

The 3rd Division's sector ran north from the Arras-Cambrai road to the winding river Scarpe, and before them were the predominating defences of Monchy-le-Preux, commanding the surrounding plains.

It was impossible for the Canadians again to take advantage of a complete surprise and their only hope was in regard to the secrecy of the zero hour,

together with the concentrated strength and unconquerable spirit of the attackers. General Currie planned to drive a wedge into the enemy with two of his Canadian divisions attacking. It was to be the overlapping operation, as far as possible, which the Canadians had used with such great success at Amiens. The 51st (Imperial) Highland Division was placed at the Corps Commander's disposal to use on his flanks if necessary. The zero hour had been planned for 4.50 a.m., but the final preparations were so well advanced that the hour was changed to 3 a.m. to take advantage of the lower visibility. It was a lucky change, for just at the new zero hour a driving rain-storm completely masked the strength of the attack, but, owing to the previous long spell of dry weather, did not make the going heavy.

Again the Canadians packed behind their attack a preponderating weight of artillery, and when the barrage started there were seventeen brigades of 18-pounders, nine brigades of heavy artillery, and about thirty heavy long-range guns, all firing at high pressure.

To the 8th Brigade, under Brigadier-General D. C. Draper, fell the first honours of the day, and by 7 a.m., after a perfectly planned encircling attack, which completely baffled the Germans and took them on an exposed flank, the town of Monchy-le-Preux was captured. The battalions of the Canadian Mounted Rifles side-slipped and dovetailed into each other's advancing line as if on manœuvres.

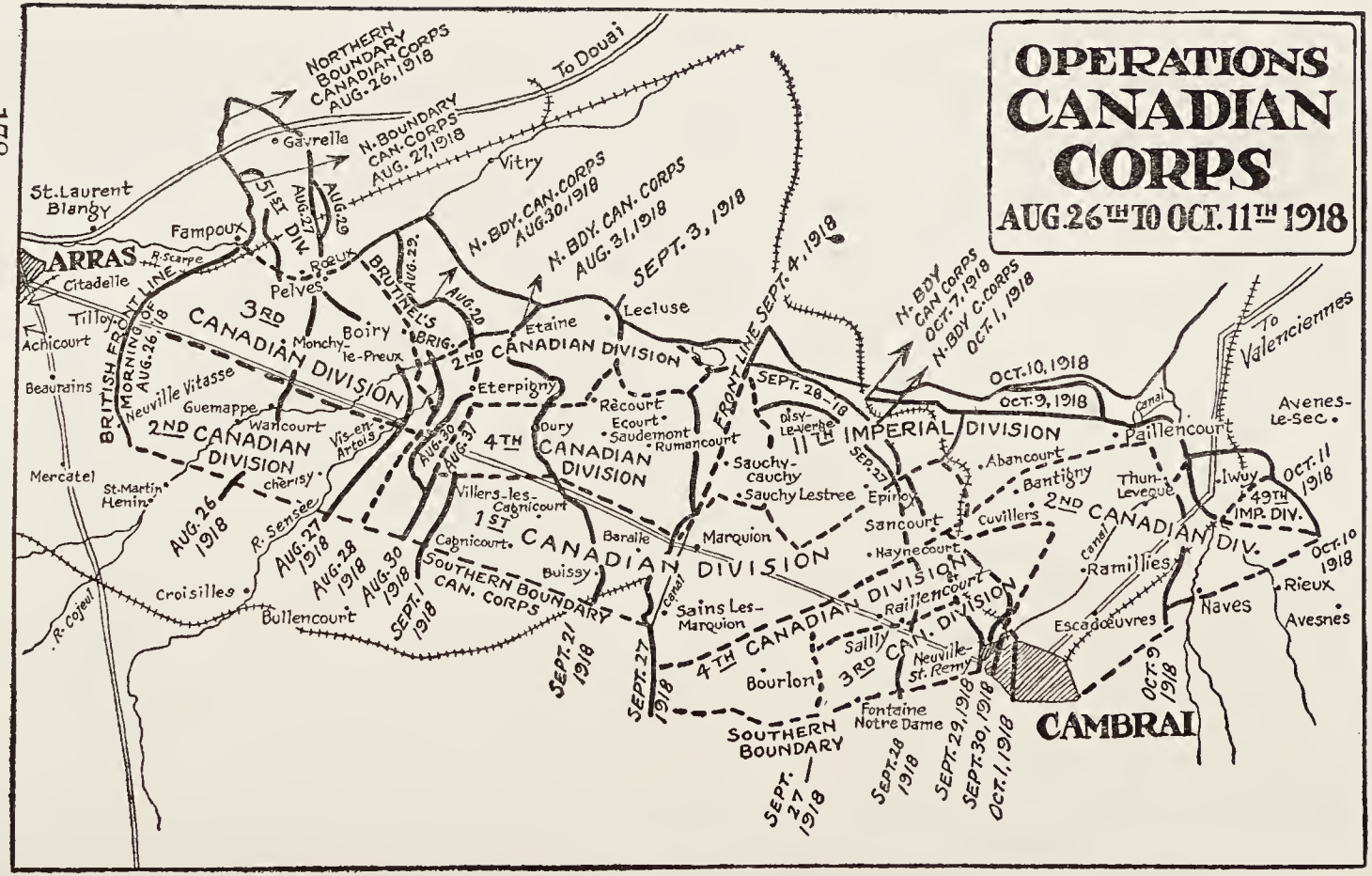
On the eastern sector the going was not so smooth and there was vicious trench fighting in which the Canadians finally obtained the upper hand, but the trenches were not cleared until eleven o'clock. The 7th Brigade, under Brigadier-General H. M. Dyer, were consolidated and joined up with the 8th at that hour. Hundreds of German prisoners were filing back to our cages, and the first venture was so suc-

cessful that it began to look like another Amiens. The German guns started a terrific bombardment of our old front line immediately after zero, but the Canadian storm troops at that time were all assembled in No Man's Land and there were very few casualties.

South of the Arras road the battle was being fought with terrific violence and in the see-saw fight waged the honours were even. It looked all morning as if the Canadians would be badly checked here, but by powerful rallies on the part of the artillery, especially the 2nd Brigade, under Brigadier-General H. A. Panet, and the gallant, dogged hand-to-hand fighting which the 6th Infantry Brigade put up, the German resistance was finally overcome and before dusk the towns of Guemappe and Wancourt, two citadels of the Hindenburg system, were firmly held by Canadians. The 28th (British Columbia) and the 31st (Alberta) Battalions made a terrific charge which swept some of Germany's old storm troops out of a complicated and well-fortified trench work called the Egret, which proved a boon to the battalions that carried on the attack next day. Five hundred German dead were counted in these trenches.

The 4th Brigade plunged through the first German line within half an hour after zero, and dashing on into the open made a magnificent charge which resulted in the taking of Chapel Hill, a strong machine-gun redoubt. The casualties of this brigade were on the light side, but to their credit they had over three hundred prisoners, one howitzer battery, and about a score of machine guns. During the night these Ontario men forced the enemy still further back and gained a footing on the heights at Heninel, which commanded a crossing of the Cojeul river.

To the north the British Highland Division had pushed its way into Gavrelle without much opposition. The enemy had concentrated its defence against the


OPERATIONS
CANADIAN
CORPS
AUG. 26TH TO OCT. 11TH 1918
NORTHERN BOUNDARY CANADIAN CORPS AUG. 26, 1918
N. BOUNDARY CAN. CORPS AUG. 27, 1918
To Douai
St. Laurent Blangy
Gavrelle
Fampoux
51ST DIV.
AUG. 27
AUG. 29
ARRAS
R. Scarpe
Citadelle
Tilloy
BRITISH FRONT LINE MORNING OF AUG. 26 '18
Achicourt
Beaurains
Neuville Vitasse
Guemappe
Wancourt
2ND CANADIAN DIVISION
Mercatel
St. Martin Henin
AUG. 26 1918
R. Sensee
Cherisy
Vis-en-Artois
AUG. 27 1918
AUG. 28 1918
AUG. 30 1918
SEPT. 1 1918
Croisilles
R. Cojeul
Bullencourt
Pelves
Roeux
Boiry
Monchy-le-Preux
3RD CANADIAN DIVISION
BRUTINEL'S BRIG.
AUG. 29
AUG. 30
AUG. 31
Vitry
N. BDY. CAN. CORPS AUG. 30, 1918
N. BDY. CAN. CORPS AUG. 31, 1918
SEPT. 3, 1918
Etaine
Lecluse
2ND CANADIAN DIVISION
Eterpigny
Dury
4TH CANADIAN DIVISION
Villers-les-Cagnicourt
Cagnicourt
1ST CANADIAN DIVISION
Recourt
Ecourt
Saudemont
Rumancourt
Baralle
Buissy
SOUTHERN BOUNDARY CAN. CORPS
Marquion
Sains Les-Marquion
Canal
SEPT. 21 1918
SEPT. 27 1918
SOUTHERN BOUNDARY
SEPT. 27 1918
FRONT LINE SEPT. 4, 1918
SEPT. 28 '18
Disy-Leverhe
11TH IMPERIAL DIVISION
Sauchy-cauchy
Sauchy Lestree
Epinoy
Sancourt
Haynecourt
Cuvillers
Abancourt
Bantigny
2ND CANADIAN DIV.
Ramillies
Escadoeuvres
Raillencourt
4TH CANADIAN DIVISION
Sailly
3RD CAN. DIVISION
Neuville-St. Remy
Bourlon
Fontaine Notre Dame
SEPT. 28 1918
SEPT. 29, 1918
SEPT. 30, 1918
OCT. 1, 1918
CAMBRAI
OCT. 9 1918
N. BDY CAN CORPS OCT. 7, 1918
N. BDY C. CORPS OCT. 1, 1918
OCT. 10, 1918
OCT. 9, 1918
Canal
Paillencourt
To Valenciennes
Avenes-le-Sec.
Iwuy
OCT. 11 1918
49TH IMP. DIV.
Thun-Leveque
Canal
OCT. 10 1918
Rieux
Naves
Avesnes

Canadians, whom they rightly regarded as being the storm troops.

Altogether this first phase had been successful and carried out to schedule. The price extorted from the Germans was stupendous and the trenches were piled with their dead. For the most part the German defenders were picked troops from well-known regiments, yet in hand-to-hand fighting or in skirmishing they were no match for the specially trained Canadians. In addition the artillery had completely caved in their front-line trenches and had imprisoned hundreds in the dug-outs.

On the first day over two thousand prisoners were taken and many machine guns and trench mortars, but the attack stopped just short of the Germans' main artillery line, so that the count of guns was low. It was impossible for the enemy to remove them during the night and several score were destroyed or captured the next day. The thin end of Currie's human wedge was driven well into the German defence and there were happy signs of the ponderous system splitting if the hard blows could be kept up. Six thousand yards in depth had been gained all along the line on a front of ten thousand yards.

Again the engineers and the railway construction battalions, working under high pressure, did splendidly. The roads were cleared and small bridges over the little tributaries of the river Sensée were constructed in spite of the attention of the German guns. The light railways were operating almost up to battalion headquarters and were delivering eighteen hundred tons of rations each working day.

There was an important bridge over the Sensée river at Vis-en-Artois, a medium-sized town which the Canadians held but lightly. A captain of the engineers was sent out to make a reconnaissance of this structure and after much wandering in the dark found the bridge. It was intact, but mined, with the leads at-

tached. The engineer crawled back to a Canadian infantry post and, with a patrol of four to stand guard and prevent enemy interference, he clambered to the German end of the steel structure and cut the leads.

The armoured cars of Brutinel's Independent Force again proved their worth at critical times, by working up and down the Arras-Cambrai road, harassing the German infantry as it attempted to concentrate for a counter-attack aimed to split the two fighting divisions. By this time the battle was in two very distinct sections. The 2nd Division was thrusting its way towards Wancourt Ridge and the 3rd Division was working down the valley of the Scarpe.

General Currie, in his report on the day's operations, emphasizes the magnitude of the task still before the Canadians.

" The enemy throughout the day," he says, " pushed a large number of reinforcements forward, bringing up machine-gun units in motor lorries in face of our accurate field and heavy artillery fire. Hostile field batteries in the open, firing over open sights, showed remarkable tenacity, several remaining in action until the personnel had been destroyed by our machine-gun fire.

" Our casualties were heavy, especially in the 2nd Canadian Division, and after discussing the situation with the G.O.C. 2nd Canadian Division, and taking into consideration the uncertainty of the situation on the right flank of this division, the operations were, after 5.45 p.m., restricted to the consolidation of the line that reached east of the Sensée river."

The continuation of the attack on August 28th, it was hoped, would bring the Canadians into the Fresnes-Rouvroy Line, the capture of which was necessary if the Drocourt switch was to be taken. With another morning of driving rain, the two divisions once more flung themselves into battle. The Canadian gunners again did their effective share and the

ranging was good, their shells working havoc at places where the Germans had concentrated emergency troops to be used wherever the line threatened to break. These old trenches, when the Canadian infantry reached them, were veritable shambles, and the punishment the German reserves got must have proved a terrific strain on those who escaped.

The 2nd Division, almost in desperation, worked its fighting way through the troops opposed to it, fresh regiments which had relieved the badly mauled ones during the night. Along the banks of the Sensée river was some of the most sanguinary fighting that had occurred in the battle. Sometimes the infantry on both sides were waist-deep in the waters of the stream, struggling fiercely, the Germans to press back the invaders, the Canadians to win their way to the further side. But progress was made and a specially fine showing goes to the credit of the 22nd Battalion (French-Canadian). According to an eye-witness, these men twice gained posts on the far side of a small river and were driven back by murderous enfilading fire. But the third time they held on. Their brigade, the 5th, under Brigadier-General T. L. Tremblay, thrust its way through until it reached the village of Chérisy and then, after sheer desperate fighting, which included the rushing of over a dozen machine-gun posts, swam across the Sensée river and established strong points which held against several German attacks. The 5th Brigade was held up in Vis-en-Artois.

The 3rd Division also ran into determined resistance, but managed to gain ground, after repeated charges with bomb and bayonet. Bois du Vert and Bois du Sart, two well-fortified woods which gave them considerable trouble, were finally taken and a part of the village of Pelves was in the hands of the Canadians. Here the Canadian division got in touch with the Imperials on the other side of the river and

for the first time in the day the flank of the 3rd Division was safe. Because of the delay in the advance of the Imperials, they had been forced to hold a line six thousand yards long instead of their allotted three thousand five hundred. A foothold was gained in Haucourt, Remy, and Boiry-Notre-Dame. Altogether the division's advance could be counted as an important gain, with desperate open fighting against picked enemy regiments, — probably the fiercest the Canadians or Germans had yet engaged in, — and the honours were with the men from overseas. In many places the 3rd Division battalions charged batteries which were firing at them over open sights, spreading out in patrols with Lewis guns and wiping out the German crews. The enemy, in this sector, for the first time used his mounted machine guns, an imitation of the Canadian unit which had given such a good account of itself. In one place a German machine gun came into contact with one of the Yukon Battery's armoured cars, and its finish was remarkably quick.

The 2nd and 3rd Divisions were exhausted and it was imperative that they be given a chance to rest. At this period they were fighting against great numerical odds. Their losses had been severe. Take the 5th Brigade as an example, with casualties of one hundred officers and twenty-five hundred men. On August 29th the tired troops were not used in assault and the day was confined to counter-battery work. The other two Canadian divisions, last up from the Somme, were ready for the line and relief was at hand.

The courage and determination shown by the Canadian battalions had been magnificent. Some parties of the 5th Brigade had reached the Rouvroy wire and held on desperately, hoping that the Imperial troops on our right would come up. On the left of the brigade were the 22nd Battalion of French Canadians, and with other Quebec regiments they put up a won-

Canadian Official Photograph

OFFICERS OF THE 22ND BATTALION, 1918

derful fight in which the 22nd lost every officer a casualty. When night fell a sergeant and a handful of men were still holding on grimly.

Continuously from the time of the first jump-off the fighting had been terrific and many were the bitter, determined struggles which ended with no gain. Take the story of the 8th Brigade. On the 24th they were in the Feuchy area just east of Arras, preparing to go into the line. Suddenly, almost at dawn, the enemy started a heavy gas bombardment of their assembly point. It kept on for over an hour, but the masks had to be worn by the men needed for the assault for over five hours. Gas experts declared the danger over at eleven o'clock, and the weary men, taking off their masks, threw themselves down on the grass to rest. At noon a hot sun developed, vapourizing the gas liquid in the long grass, and the men became rapidly affected. A large area had to be evacuated, and as the men marched away they again stirred up the poison, cases developing rapidly. Five officers and over a hundred men were casualties.

The brigade were fortunate in the first part of the attack, the enemy shells raining on their old trenches, while they were safely assembled in No Man's Land. Shortly after 5 a.m. the 1st and 4th Canadian Mounted Rifles were flashing back the welcome news that they were on the crest of Orange Hill — two hours' work. Undaunted, and reinforced by the 5th, they plunged on into the trench system which defended Monchy-le-Preux and were in the town by 8 a.m.

On August 28th, Monchy safely held, the 3rd Division was set the task of passing on through the open country and taking the villages of Dury and Etaing. The former was an important town near the junction of the Sensée and Trinquis rivers and the latter was about two thousand yards to the south towards the Arras-Cambrai road.

All that afternoon, despite the attention of the Ger-

man guns, the 7th and 9th Brigades were busy making an organized line. The 49th Battalion (Alberta), Princess Pats, and Royal Canadians, together with the 42nd Battalion (Montreal), who made one effective cut-off of a German post, were building machine-gun redoubts, for there was no question but that the Germans would attempt a counter-attack. The line ran from Pelves Mill down through Keeling Copse in front of Bois du Sart and Bois du Vert, east and north of Vis-en-Artois through well-protected land, to the Cojeul river. The 58th, 116th, 52nd, and 43rd Battalions were holding the front line. The adventures of some of these battalions of the 9th Brigade are worth describing.

The 43rd (Cameron Highlanders of Canada), after marching up from Arras, went into action on August 27th, when the 2nd Division had been advanced and their own division was delayed by stubborn resistance of fresh German regiments. Their task was to press forward the right of the 3rd Division and make it conform with the new position the 2nd had gained along the banks of the Cojeul river. This district was honeycombed with old British and German trenches where the line had become stationary after the 1917 battle for Arras. The progress of the Highlanders through these old trenches was not made without some stiff fighting. The opposing units got so badly mixed up that both sides stopped their machine-gun fire and the spectacle was observed of small groups of Highlanders and Germans in daylight fighting desperate hand-to-hand battles with bombs and rifles, with here and there Lewis guns being fired from the shoulder. While this affray was at its hottest, another company of the 43rd quietly worked its way to the main trenches, set off a score of smoke bombs, and under their cover wiped out the greater part of the garrison. All units being accounted for, the Highlanders decided to press on, although they were out of touch with both

their flanks and were over half a mile ahead of any other Canadian troops. They came up out of the trenches unexpectedly and found that ahead of them was straight open country. Behind them was a German battalion resting in reserve. They punished this group severely, using German machine guns they had acquired in their foray as well as their own equipment. When it had broken and fled they took their bearings and found that ahead of them was the town of Boiry. One attempt to rush this town told them emphatically that the enemy were in force. Two companies of the battalion were fighting back to back for several hours that afternoon, but gradually they slipped through the German cordon and ran into the 2nd Canadian Mounted Rifles. Their casualties had been remarkably light.

Both units reported their positions and were requested to hold on until evening, when the 3rd Division would attack to make good the crossings of the Sensée river. The 43rd and the 2nd Canadian Mounted Rifles were to clean up Remy Wood and if possible cross the river at Remy. Backed up by a heavy artillery barrage, the tired but undaunted units carried out their task, getting a firm grip on the west bank. The 5th Canadian Mounted Rifles, who were also in the attack, were not so lucky, but won through finally, though at the cost of fifty per cent. casualties, there remaining unwounded but one officer with each company. This unit had rushed Haucourt Wood and were established in Haucourt itself, an advantage that meant much when the next operation took place. On that afternoon the 52nd Battalion (Manitoba) and the 4th Canadian Mounted Rifles attacked and captured Boiry-Notre-Dame. That night the brigade was relieved.

The operations had been costly to the enemy, but Canadian battalions had also paid full price for their gains. The line was now in good shape for an attack

on the Drocourt system. The most important part of the Fresnes-Rouvroy Line was in our hands. Fresh troops were the urgent necessity of the Canadian Commander and on the night of August 29th the relief was carried out. The 1st Division came in on the right and the 4th Imperial Division on the left. Brutinel's Independent Force of machine guns and trench mortars were given their old job of protecting the flank. A gain of six hundred yards would put the Canadians in full possession of the Rouvroy defences and give the attackers every advantage in their jumping-off places for the assault on the Drocourt-Quéant system. By August 30th the line had been taken to where the attackers desired. Brutinel's Brigade had captured Bench Farm and Victoria Copse, north of Boiry-Notre-Dame, insignificant names, but important citadels of machine guns and trench mortars. The 1st Division attacked the section of the Vis-en-Artois switch line, and a daring manœuvre by the 1st Brigade, backed by effective artillery support, was completely successful. Our losses were very light and the entire German garrison were either killed or taken prisoner. Twice the enemy launched counter-attacks on a large scale and both times they faded under our artillery fire. The work of the 1st Divisional Artillery was wonderful and they put up a barrage that no human beings could have penetrated.

The 4th (Imperial) Division also won more ground, giving us the advantage of observation, and they also drove through the wooded country which, heavily wired, — part of the Fresnes works, — protected Remy and Eterpigny. These two towns they captured and held, and the strongly fortified St. Servins Farm, beyond Haucourt, also fell to them, although it was continually changing hands until September 2nd.

Early on September 1st the Canadians were surprised to find their 4th Division entering the line. Watson's men had been fighting up to the last minute

on the Somme, one engagement being on August 26th, and stories of their prowess had reached the Arras front.

Although the attack had been planned for September 1st, the fact that more artillery preparation was necessary and that there were still many gaps to be made in the immense German wire defences on the Drocourt Line, made postponement necessary. The 3rd Brigade took advantage of this extra time by making a sudden attack on a redoubt opposite them called Crow's Nest, which they rushed successfully and which gave them an ideal jumping-off place. The 2nd Brigade, by a brilliant operation, carried two intricate works called Ocean Trench and Orchard Trench.

At the last moment, too, the 4th Canadian Division extended its front, taking over part of the sector of the 4th (Imperial) Division, — part of the Old Contemptibles, — who had fought gallantly and had become great favourites with their comrades from overseas. So within a few hours of zero important switches had to be made. The 10th Brigade (Brigadier-General R. J. F. Hayter) and the 12th (Brigadier-General J. H. MacBrien) were moved to their new positions next the British line early on the morning of the attack, but were ready when zero hour came and played a conspicuous part.

It was perfectly obvious that the Germans were aware of our preparations and the coming attack, and the work ahead of the Canadian and Imperial divisions was going to be desperate. The enemy had taken divisions out of the battle line north and south to strengthen his defence. In many sectors the attackers were outnumbered. Four German divisions were fronting the 1st and 4th (Canadian) units.

A high plateau between the villages of the river Sensée and the Canal du Nord extended for ten thousand yards on the right. On the left were deep ravines and broken, rolling ground, and small hamlets

with houses mostly of stone, ideal nests for machine guns. There were four distinct lines of trenches, including the famous Drocourt-Quéant section, all linked up with tunnels and communication trenches and bounded with mile upon mile of barbed wire.

The Canadians were optimists. They hoped that the rush and violence of the attack would carry them on to the Canal du Nord Line. From the Drocourt works the ground sloped gently for about four thousand yards, except that here and there the contour was relieved by an occasional knoll or small ridge. Then it rose gradually for some distance, so that in attacking the ground would be in our favour. Generally the country was but little scarred by shell fire and favourable for open fighting.

Using only fifty per cent. of the gun power he commanded, Major-General Morrison had found that he could blow great gaps in the German wire, and this obstacle was regarded as overcome. When the full blast of the first barrage was let loose, it completely wiped away miles of this class of defence, on which the Germans had relied from the beginning of trench warfare.

Late that afternoon the enemy delivered more violent counter-attacks, from which the artillery and mounted machine guns took full toll. In some places the 1st and 4th (Canadian) Divisions were forced to give ground. Two fresh German divisions were identified by prisoners taken. Before the zero hour the Canadians had fought their way back into their original places and the enemy had left well over a thousand dead in their vain attempt to stall off the coming attack.

On the morning of September 2nd, the major operation, looking to the capture of the famous Drocourt-Quéant Line and the forcing back of the Germans to the Canal du Nord, was launched. Again there was a driving downpour of rain which masked our move-

ments. The Third Army was to advance simultaneously with the Canadian Corps — they, too, got off to an advantageous start.

The barrage was the most terrific that had yet been laid down. Each successive battle in which the Canadians had been spear-heads had been opened by an overpowering superiority in weight of guns. This one was the superlative. Not only were the Drocourt trenches crumbled to atoms, but the support lines and posts were obliterated. The German batteries were put out of action and within an hour of zero, so complete had been the destruction, the Canadian guns were able to start forward to new positions.

Tanks, armoured cars, and the motor machine guns whirled into the attack and once again they got through the infantry lines of the enemy, disorganizing them and carrying terror wherever they went. The Canadian infantry drove on doggedly and with a sureness of purpose which omened victory. They slaughtered the disconnected groups of the enemy that attempted to stay their advance and there were few prisoners taken in the first few hours. They cleaned up what remained of the enemy dug-outs, and, while they halted to do this, fresh battalions plunged through them and carried on the main attack, which was gradually driving the enemy into what approached a rout. There was none of the dismal fighting of the previous week. Once again the enemy was disorganized and open warfare was the rule.

From all along the line came back the happy news that the main section of the Drocourt-Quéant system was captured. Thousands of German prisoners, men from regiments which had won great Teutonic glory for their fierceness in other battles, were being rushed back to our lines. Caught in the terrific barrage, cut off from retreat both by a ring of heavy shells and by our mobile machine-gun batteries, they surrendered — broken men.

In an old German dug-out the writer met a high Corps Staff officer, an intimate friend. In his hand he held a field despatch and tears of joy rolled down his muddy face. The whole of the Drocourt-Quéant Line was in our hands and this time it was not only captured — it was destroyed. Beyond the victorious corps was open country with a demoralized German army, rushing helter-skelter for shelter behind the Canal du Nord. The Canadian wedge had done its work effectively.

"If the staff keep their heads and the men their present spirits, it will be another débâcle for the Hun," said the officer. The staff kept their heads and the men plunged on in their unbeatable way.

The line captured, the armoured cars and the machine guns, with a regiment of Imperial cavalry (10th Royal Hussars), drove hard away into the open, fighting desperately, running amuck among the German strong points that the artillery had missed. Their mission was to gain the Marquion bridge over the Canal du Nord. They managed to get within sight of their objective, but the German defences were too strong and they were beaten back, having a hard fight to regain the Arras-Cambrai road. They reached La Biroche Farm, north of Villers-lez-Cagnicourt, from which they made harassing expeditions into the German lines. At Dury their patrols came across the town commandant and his staff, fast asleep in their dug-outs, and made them all prisoners. That night their scouts brought in good news. Unquestionably, the Germans were retiring across the Canal du Nord. On the right the 1st Division had done valiantly against stiff machine-gun resistance, and passing through the battered trench systems had deployed out into the open, capturing the well-fortified villages of Cagnicourt, Villers-lez-Cagnicourt, and the Bois de Bouche and Bois de Loison. Cagnicourt was an important German divisional centre, south of the Arras-Cambrai

road, and was in a commanding position. In the afternoon they drove still further on and reached the outskirts of Buissy, protected by a formidable tangle of wire and machine-gun posts connected by cement trenches, which was still holding out against a 4th Division battalion.

The 4th Division was making a game struggle to gain the Canal du Nord that night. The battalions were fighting in brilliant fashion and their losses had been slight. But shortage of ammunition called a halt and finally it was decided to suspend the attack until next day.

"Although the crossings of the Canal du Nord had not been captured," says General Currie, in his report, "the result of the day's fighting was most gratifying. The Canadian Corps had pierced the Drocourt-Quéant Line on its whole front of attack, and the exploitation of our success by the XVII Corps on the right had further widened the breach and made possible the capture of a large stretch of territory to the south."

It had been another glorious day for Canadian arms. The new line was approximately six thousand yards beyond the Drocourt trenches. The whole advance had been just over twelve miles. From the south had come the news that a British naval division had captured Quéant.

Of the brigades and battalions that had distinguished themselves may be mentioned the 2nd Brigade. The 7th Battalion (British Columbia) stormed the remnants of the trenches in brilliant fashion and gathered in the survivors of a famous Bavarian regiment as prisoners. From their final objective, their comrades of the 10th Battalion (Alberta) carried the line still further to the outskirts of Buissy Redoubt.

The 11th Brigade and parts of the 12th and 10th on the right of the attack had some terrific fighting after gaining their share of the trench works. They

opened out and skirmished ahead until they reached the slope rising to Dury. Here they attempted the leap-frog tactics, but were swept by deadly machine-gun fire from several angles. Our guns had shot themselves out and were waiting for ammunition, and the attack had to be postponed until the morning. At dawn it was found that the Germans had retreated across the Canal du Nord.

In the great area behind the Canadian infantry all that night worked the engineers and railway units. As at Amiens, undaunted by intermittent shelling from sulky German batteries which twice that day had been compelled to change their positions, — backward, — they wove the network of steel and repaired the main roads which would serve in the coming attack. The empty ammunition dumps were filled dangerously to overflowing. Routes were planned for sudden concentrations. Steel and wooden bridges in sections were brought up almost to the infantry lines, light ones for the infantry and heavy ones that would take tanks and guns.

One of the sections that deserves great credit for work in the Drocourt battle was the signallers and linemen. Despite the tremendous shelling which occurred early in the attack, they kept up an almost continuous line of communication. When the wires did " go out," brave runners with the blue and white insignia on their arms made their way back from the forward posts to battalion and brigade headquarters. In one day over five thousand telephone wires were handled, and with what telegraph wires were working the total is estimated at over eight thousand. Over twenty miles of pole lines were constructed in the forward areas, in addition to the ground lines which were strung in emergency situations. In the whole week, including over one hundred miles in back areas, one thousand five hundred miles of wire were used.

As in other battles, the Canadian nurses kept close up behind the infantry and, in spite of friendly protests from the doctors, worked in many clearing stations which were exposed to enemy fire. By a miracle there were no fatal casualties among these brave sisters, but several of them were shell-shocked and suffered minor wounds.

On the night of September 2nd the village of Etaing, on the river Sensée, was surprised and captured by the 4th (Imperial) Division. It helped considerably to ease the line and by dawn of the following day the task of clearing what remained of the Germans on our side of the canal was commenced. Saudemont, Rumaucourt, Ecourt-St. Quentin, and a large lake on which was a château used as German army headquarters, were taken with ease. At Lécluse and Rumaucourt there were over one hundred French civilians, mostly old men and women, who had hidden as the Germans retreated. They greeted the Canadians with transports of joy and from their meagre stores fed them with coffee and delicacies they had kept from their warders of four years. They gave to the Canadian Intelligence much valuable information regarding the defences of the Canal du Nord, which they had been allowed to cross every day up to the time of the present offensive. At another place an old quarry was filled with French fugitives, whom the Germans had left in an unspeakable condition.

A concise summary of the situation at this time is found in the report of the operations of the 4th Canadian Division. General Sir David Watson says in part: " On the afternoon of September 3rd we pushed our posts well up to the western bank of the canal and dug in. The Boche was on the far side, but seemed quite content to stay there. There were numerous efforts made to force the crossing of the canal, but none of them materialized and in the end the division was withdrawn on September 6th to the area between

Chérisy and Arras, where it pulled itself into shape once more to undertake the hardest fighting of its career in Bourlon Wood and subsequent operations. Prior to the penetration of the Drocourt-Quéant Line the enemy had obviously decided to withdraw his disorganized armies from the Somme salient and reorganize them behind the formidable Hindenburg Line. Part of this was now gone, but with the Canal du Nord as an extension of it there was still a chance of his effecting the reorganization. It was therefore imperative for the Canadians to relieve the pressure.''

By September 4th, then, our line was established along the west bank of the canal and the final objective was reached. This stage, like the others, had ended in a victory for the Canadians. The total tally of prisoners by this time had reached 10,360, of whom 262 were officers. The guns captured aggregated 97, exclusive of 1,016 machine guns and 73 trench mortars. Five trench systems had been overrun and eighteen German divisions either knocked out or so badly mauled that their fighting worth was reduced almost to the irreducible minimum.

This record of achievement, added to that made at Amiens, makes an enviable showing for a month's work for one corps, of which the Canadians are pardonably proud.

It was impossible without elaborate preparations to begin the attack on the canal. General Currie shortened his left flank by handing over command of the 1st (Imperial) Division which had been given him to the XXII (Imperial) Corps, which relieved him of the sector from Palleul to Etaing. On the right flank the XVII (Imperial) Corps had attempted to cross the canal in front of Mœuvres, but had been repulsed. The Canadian Commander realized that a frontal attack on the canal was impossible, as the eastern bank was heavily wired and all the bridges destroyed.

Canadian Official Photograph

A SECTION OF A GERMAN ENGINEERS' PARK AND GERMAN PRISONERS CAPTURED BY THE CANADIANS

CHAPTER VIII

BATTLE OF CAMBRAI

"THE Canal du Nord," says the Corps Commander in his report, "was in itself a serious obstacle. It was under construction at the outbreak of the war and had not been completed. Generally speaking, it followed the valley of the river Agache, but not the actual bed of the river. The average width was about one hundred feet and it was flooded as far south as the lock, eight hundred yards south-west of Sains-lez-Marquion, just north of the corps southern boundary. South of this and to the right of the corps front the canal was dry and its bottom was at the natural ground level, the sides of the canal consisting of high earth and brick banks."

At the most vulnerable section of the canal, in front of Rumaucourt, the German engineers had flooded a large area from the waters of the river Sensée, and this gave them an unassailable defence. There was a prospect of outflanking this position and finally crossing by pontoon bridges, and as a matter of fact this eventually occurred.

From Oisy-le-Verger, on the German side of the canal, the enemy commanded a clear view of our preparations. It was the highest piece of ground within five miles. There was to be grim and gruelling fighting for the Canadians, and the whole canal line must, by right of combat, fall to the attacking troops. What the German commanders' feelings were as they watched these preparations can only be imagined. From September 4th to the assault on September 27th,

the battering machine grew while the enemy contented himself with little battery contests in which he knew he was the inferior.

In a few days the 2nd and 3rd Divisions, again rested, went into the line in front of and to the south of Ecourt-St. Quentin, the 1st and 4th marching back to rest and refit. The weather alone precluded any chance for attack, but there were no idle days, and the defences which were to be our support line, in case of failure, grew in strength under the enemy's watchful eyes.

South of Mœuvres the XVII (Imperial) Corps had failed to drive the Germans across the unfilled end of the canal and there was always the prospect of a counter-attack from this direction.

On September 15th General Currie received the details of the operation against the canal and Cambrai that was to be carried out later in the month. The Third and Fourth Armies were to make a united attack, and again the Canadians were chosen as "spearheads." They were to be quietly relieved by the XXII Corps and side-slip south to the dry portion of the canal below Marquion. There, in the very centre of the huge assault, they were to fight their way across the canal and capture the famous Bourlon Wood, which commanded Cambrai and which, once in the hands of the Allies, would make safe the right flank of the general scheme. On September 22nd the task of the corps was enlarged to include the capture of the bridges over the Canal de l'Escaut, and General Currie was given another division, the 11th (Imperial). It was the boldest, most daring, and amazing tactical scheme the Canadian Staff had ever worked out, but it showed the absolute confidence reposed in them by the Great Allied Command. It showed also their own faith in what the Canadian fighter could do.

The section of the canal to be crossed in the first attack was about two thousand five hundred yards

long. To the extreme right was the refreshed and reinforced 4th Canadian Division, noted for its stubborn, undeniable assaults. Again playing the leapfrog game of war, the 3rd Division would at the critical time pass through it and the 4th drop back for a breathing spell. These divisions were to push rapidly forward to Bourlon Wood, while the 2nd Division, and with them the 11th (Imperial) Division, after crossing at the same place, were to fan out northward and enfilade the German position along the banks of the canal, thus securing the flank.

The barrage at 5.20 a.m., on September 27th, was up to the Amiens and Drocourt mark. Some of the batteries even managed to follow through with the infantry and establish themselves in former enemy territory within two hours of zero. Their assistance to the storm troops was priceless.

With a rush that could not be denied them, the 10th Brigade advanced across the canal from Inchy-en-Artois, establishing themselves firmly until the 12th and 11th, from left to right, came through them and started on the dash for Bourlon Wood, a grim, misty shape, which stood out ghost-like and forbidding as the morning light grew. The advance on the left was hampered by heavy resistance which a fresh division put up during the afternoon, but the objective there was eventually gained. On the right the plans for "pinching out" Bourlon Wood were spoiled and the situation seriously jeopardized by the failure of the Imperials on our right to get through in time. Major-General Sir David Watson, a born soldier, altered his plans to suit the change, and before noon the wood was taken. The 12th Brigade pushed through and stormed the town. The 4th Division were at their final objectives.

On schedule time next morning the hard-working 3rd Division, which had been guarding the flank of the 4th, came through and carried the line on to the plains

along the Cambrai-Douai road. Major-General Lipsett just before this attack went to an Imperial command — the "Fighting Fourth" — and Brigadier-General F. O. W. Loomis was promoted and given the 3rd Division. Colonel R. P. Clark was given Lipsett's old 2nd Brigade. On December 14th, less than three weeks after this battle, Major-General Lipsett was killed by a sniper's bullet while fighting with his new command.

It was the lucky privilege of the writer to be taken, with other British war correspondents, through the trenches of Bourlon Wood and the town of Bourlon, when, in November, 1917, the British Guards, then under General Byng, former commander of the Canadian Corps, had gained the crest of the hill. The attack at that time had been from the south and the approach had to be through tedious communication trenches of over a mile from Anneux. Under continuous shelling, the journey up was difficult and dangerous, but from the highest contour of the hill, at a reversed German observation post, the view of Cambrai and its environs was well worth the risk.

The trenches which guarded the hill were for the most part of concrete and had withstood the British bombardment. The guards had won their way by sheer man-strength — bomb and bayonet — and they were holding on desperately. The slopes of the hill on the south were a network of heavy wire, impossible to assault. To the north, on lower ground, was the battered town of Bourlon, and in its reinforced houses the Germans were still holding on grimly. The hill itself was connected with the German line by scores of tunnels, and while we were there hundreds of Germans were being routed out of these to be marched down under their own shell fire as prisoners.

The autumn woods were almost denuded of their foliage, the trees were scarred by high explosives, and great gaps made by our shells occurred where there

Canadian Official Photograph

FUNERAL OF MAJOR-GENERAL L. J. LIPSETT, C. B., C. M. G.

had been German miniature forts. From the observation post it was possible to look back at the aerodrome of Ste. Olle and one disused landing-ground at Proville. The Canal de l'Escaut made a shining ribbon in the November sun until it disappeared among the houses at Cambrai. Straight east could be seen the railway junction and twice daring supply trains chased by shells raced across territory that was under direct observation. At the foot of the hill was Fontaine-Notre-Dame, and beyond it, the yellow earth thrown up and fronted by thick black wire, was the Marcoing section of the Hindenburg Line. It was a thrilling panorama of war, but little did the party think that one day Canadians would be fighting victoriously their way into that coveted town.

The attack in this section was continued next morning. The 3rd Division captured Fontaine-Notre-Dame, outside the corps area, where an Imperial division was being held up, completely cutting off what remained of the Bourlon garrison, broke the Marcoing section of the line, and finally won their way to Ste. Olle, one of the western suburbs of Cambrai. Further north, the 1st Division had broken away in fine fashion and had captured Haynecourt, thus threatening the rear of the Germans, who still managed to hold on to the canal line. The 11th (Imperial) Division had kept contact with them and by evening had taken Epinoy and Oisy-le-Verger.

Two determined counter-attacks launched with the hope that the 4th Division might be cut off were made from Raillencourt on the afternoon of the 28th, but they were repulsed by the 4th Division artillery that was at hand, and the enemy losses were severe.

To the artillery must be given great credit for this victory. General Currie awards them special mention in his report. Major-General E. W. B. Morrison had under him in this action Brigadier-General R. H. Massie, commanding the heavies, and the divisional

artillery commanders as follows: Brigadier-General H. C. Thacker, of the 1st; Brigadier-General H. A. Panet, of the 2nd; Brigadier-General J. S. Stewart, of the 3rd; Brigadier-General W. B. M. King, of the 4th; and Brigadier-General W. O. H. Dodds, of the 5th. Another unit which the Corps Commander honours is that of the engineers, under Major-General W. B. Lindsay. At one place on the canal an engineering unit actually beat off a hostile attack while a bridge was being completed. On the second day they had permanent steel bridges crossing the canal at seven different places.

Generally the situation to the north was favourable. In most places the Germans had been driven from the canal system, and those groups which had not got away were in dire danger of capture. The 1st Division had done well. The 3rd Brigade, having successfully taken their section of the canal line, swung north and later turned west, surrounding the village of Sains-lez-Marquion. Spreading out, they captured a strong point in a place called Keith Wood and finally entered the town of Marquion itself. The advance from this sector was then continued by the 11th (Imperial) Division, which had two brigades in support. The 2nd and the 3rd Canadian Brigades had carried their advance well across the Arras-Cambrai road, winning their way through the open country, despite heavy German machine-gun fire.

We had captured over 5,000 unwounded prisoners, 102 guns, and hundreds of machine guns. Our advance had been nearly seven thousand yards.

The beginning of the struggle for Cambrai is best told in the Corps Commander's own words: —

" The attack was continued on the 28th. The 3rd Canadian Division captured Fontaine-Notre-Dame (one of the XVII Corps objectives), and, penetrating the Marcoing Line, reached the western outskirts of Ste. Olle. The 4th Canadian Division captured Rail-

lencourt and Sailly, and the 11th (Imperial) Division established posts in Aubencheul-au-Bac and occupied the Bois-de-Quesnoy. The 1st Canadian Division, in view of their advance of the previous day, which had produced a considerable salient, did not push forward.

"Heavy fighting characterized the 29th. The 3rd Canadian Division, the 4th Canadian Division, and the 1st Canadian Division all made progress in the face of severe opposition. The 3rd Canadian Division pushed the line forward to the junction of the Arras and Bapaume road, the western outskirts of Neuville St. Remy and the Douai-Cambrai road. They also cleared the Marquion Line from the Bapaume-Cambrai road southwards towards the Canal de l'Escaut. These trenches were in the XVII Corps area, but it was difficult for our attack to progress leaving on its flank and rear this strongly held position. The 4th Canadian Division captured Sancourt, crossed the Douai-Cambrai Railway and entered Blécourt, but later withdrew to the line of the railway in the face of a heavy counter-attack. The necessity for this withdrawal was accentuated by the situation on the left. The 11th Division, in spite of two attempts, had been unable to occupy the high ground north-east of Epinoy."

Three days of hard fighting had brought the Canadians to the fringe of the large plateau which extends from the river Escaut (Scheldt) to the Sensée. The Germans were fighting desperately to keep our infantry from gaining the crests. Next day it was determined to change the plan of attack. On September 30th the 3rd Canadian Division was on the right and the 4th on the left. The objective of the latter was to push on and capture the bridge-heads at Point d'Aire and Ramillies, while its left wing was to co-operate with an Imperial division, under cover of a smoke attack, against the crest of the plateau as far as Cuvillers. The 4th pushed through to Blécourt, but

an unlucky gale blew the smoke screen away and they were compelled to fall back on Sancourt. The 3rd Division had more luck and captured Tilloy and Blécourt, reaching Ramillies, but later being compelled to fall back on Tilloy. This was the grip on the plateau that was wanted and it would make a good jumping-off place for another attack. Prisoners taken in these operations were of fine type, and officers admitted that at all costs it was the intention of the enemy to keep us off the plateau.

Sir Arthur Currie sums up the situation: —

"The tremendous exertions and considerable casualties consequent upon the four days' almost continuous fighting had made heavy inroads on the freshness and efficiency of all arms, and it was questionable whether an immediate decision could be forced in face of the heavy concentration of troops, which our successful and, from the enemy's standpoint, dangerous advance, had drawn against us. On the other hand, it was known that the enemy had suffered severely and it was quite possible that matters had reached a stage where he no longer considered the retention of this position worth the severe losses both in men and *moral* consequent upon a continuance of the defence. It was therefore decided that the assault should be continued on October 1st, the four divisions in line attacking simultaneously under a heavy barrage, coordinated by the G.O.C., R.A."

The Corps Commander then dwells on the decision of the enemy to resist and proceeds: —

"To continue to throw tired troops against such opposition, without giving them an opportunity to refit, was obviously inviting a serious failure, and I accordingly decided to break off the engagement. The five days' fighting had gained ground of a very valuable nature, as well as 7,059 prisoners and 205 guns."

The Germans in this fighting had been throwing their regiments at us in dense waves and had been

badly caught by our artillery and machine-gun concentrations. It was a recklessness of human life that recalled the early days of the war, and it was well known to the Allies that at this period the enemy could ill afford the loss of the man power.

On the night of October 1st it seemed probable that the Germans would make a desperate attempt to drive us back on Bourlon Wood. From before dawn for two hours the Canadian artillery and trench mortars laid down a tremendous barrage, and when day came the German line was ominously quiet. News reached the Canadians that everywhere to the south the enemy regiments were retreating, their strength broken, and that the Imperials were advancing with little opposition, freeing town after town.

General Currie's special order to his men on October 3rd showed that out of the terrific fighting they had been through had come the desired end: —

"The mission assigned to the corps was the protection of the flanks of the Third and Fourth British Armies and that mission has been carried out to the complete satisfaction of the Commander-in-Chief. In your advance you overcame the very formidable obstacle of the Canal du Nord, you carried by assault the fortified Bourlon Wood and the Marcoing Line, and seized the high ground extending along the Douai-Cambrai road. The towns of Oisy-le-Verger, Epinoy, Haynecourt, Marquion, Sains-lez-Marquion, Sancourt, Bourlon, Fontaine-Notre-Dame, Sailly, Ste. Olle, Neuville St. Remy, and Tilloy are ours and your patrols have entered Cambrai itself.

"How arduous the task assigned to you can be judged by the fact that whereas in the operations of the First, Third, and Fourth Armies, thirty-six enemy divisions have been engaged, twelve of these divisions, supported by eleven independent machine-gun units, have been met and defeated by the Canadian Corps.

"Even of greater importance, you have wrested

sixty-nine towns and villages and over 175 square miles of French soil from the defiling Hun.

"In two months you have, with the three British divisions which have been attached to the corps, encountered and defeated decisively forty-seven German divisions — one quarter of the whole German forces on the western front."

Commanded from three sides, there was nothing left for the Germans to do but evacuate Cambrai, their boasted impregnable citadel and railway centre. On October 5th and 6th incendiary fires were observed in the big square of the town. Our observation from Bourlon showed a steady stream of stores being removed westward by road.

CHAPTER IX

CAMBRAI TO VALENCIENNES

IT was obvious to Sir Arthur Currie that his storm troops must have a chance to rest before pressing the attack on Cambrai proper and the big plain beyond. Too much time, however, could not be given to refitting, as it was known that every extra hour gave the beaten enemy a chance to get away more stores from the beleaguered city and to prepare more elaborate defences on the plateau that stretched out towards Douai and Valenciennes. The operation that resulted in the final taking of Cambrai was not entirely Canadian, but the men of the Maple Leaf, holding Bourlon, had the key to the situation. The weather at this time, too, was not suited to attack, heavy rains having made movement of troops and stores tedious.

During the night of October 1st-2nd, the 2nd Division relieved the 4th and parts of the 3rd and 1st in the line from the railway south of Tilloy to Blécourt, inclusive. The line was held on the right from the Canal de l'Escaut to Tilloy by the 3rd Division, reduced to a brigade front, while the section from Tilloy, about five miles north of Cambrai, to Blécourt, another five miles north, was held by the 2nd Division. The 11th (Imperial) Division joined up on our left and maintained the well-fortified positions as far north as the Sensée river.

There was no material change on the corps front up to October 8th, but there was considerable hard fighting in which the Canadians harassed the enemy in many ways. Our heavy batteries concentrated gas

bombardments on the enemy batteries in several big shoots and a number of them were afterwards found abandoned. The motor machine guns and armoured cars made many forays into German territory, exacting heavy toll as well as keeping the enemy from organizing his defences. One determined counter-attack was beaten off by the 5th Brigade, composed of Quebec and Maritime Province battalions, opposite Bantigny, and this was brilliantly followed up by an operation which gave the Canadians a position on the high ground controlling the canal. Canadian patrols, too, went out boldly into enemy country, capturing many prisoners and scouting until they gathered perfect knowledge of the ground on the Allied side of the canal. It was at this period that a new kind of gas was used by the British for the first time, and the Canadian gunners did heavy execution with it. It was reported in German documents captured later that it was much more effective than any gas used by the Germans.

The Third British Army, working south of Cambrai, met with much success in these days of "marking time." They crossed the Scheldt between Crèvecœur and Proville and had before them an open plain with but little in the way of trench or other fortifications. The XVII Corps was chosen to attack in strength with the assistance of both Imperial and Canadian artillery and hold the high ground between Awoingt and Cauroir, two small villages east of Cambrai. If this operation was successful, the Canadians would attack across the canal north of Cambrai, press on through Escadœuvres, skirt the city, and join hands with the Imperials to the north-east.

A day attack on the part of the overseas troops was out of the question, as the 2nd Division would have to make an advance over a wide territory under enfilading fire from the enemy's machine guns. It was therefore decided that the 2nd Division should make

a night attack, with the bridge-heads across the Scheldt as their objective. This necessitated the taking of the strongly held villages of Morenchies, Point d'Aire, and Ramillies, on the Scheldt, and Blécourt, Cuvillers, Bantigny, and Abancourt to the north.

On October 8th the attack by the Imperials on Awoingt was not completely successful and this made the task of the Canadians, who were timed to jump off at one o'clock on the morning of the next day, difficult. The night was dark and there was a heavy downpour of rain, and as a result elaborate arrangements were made for identification of our troops and the marking of routes. The artillery again did splendid work, concentrating on each village in turn and smothering the enemy's main points of resistance.

To the 5th Canadian Brigade goes the credit of the most brilliant operation in the battle; the Canadian engineers also did their share and were complimented by the Corps Commander and the Imperial Command. The engineers went over with the infantry, carrying with them material for bridges across the canal-river. They saved two of the three bridges at Point d'Aire, by scouting ahead and cutting the wires before the Germans could set off the mines, and long before daylight a practical crossing had been made, which allowed not only the infantry but also the lighter artillery and the armoured cars to get over. These combined units pressed on through Escadœuvres, capturing or killing most of the enemy reserves, and gained their way out across the plain to Cagnoncles, which meant that they had Cambrai practically encircled.

The 6th Canadian Brigade, representing Manitoba, Saskatchewan, Alberta, and British Columbia, were almost as successful, taking Sancourt, after desperate fighting, and pressing on to Ramillies, where they also crossed the Scheldt. When daylight came they had a strong flank facing north against the enemy in Cuvillers and Bantigny and with the assistance of the 11th

(Imperial) Division won their way into Abancourt, an extremely well-fortified position on which the Germans relied. By the full dawn they had cleared the enemy out of the big triangle — twenty miles square — formed by the Sensée and the Scheldt.

From all sides word came in that the operation was a complete success and that the Germans were again falling back in disorder, leaving behind them many guns and supplies. The Canadian Mounted Rifles pushed strong patrols into the city of Cambrai. Explosions and fierce fires showed that the Huns had determined that the practically uninjured town should be destroyed. Our artillery had carefully refrained from shelling the actual city, confining its destruction to houses alongside the canal which the enemy had turned into machine-gun redoubts. By six o'clock it was found that our patrols met with no opposition and the few inhabitants that greeted the victorious Canadians told the advance guards that the Germans had completely evacuated the city shortly after midnight.

All through that night it had been a reign of terror for the French inhabitants. The city had been given over to systematic sacking and efforts had been made to mine and completely destroy all the larger buildings. The Canadian engineers had followed the infantry scouts and worked heroically to confine the fires. Blowing up buildings which were threatened, they saved the larger portion of the town, and joined later by the Canadian railway troops and pioneers they did splendid work in cutting the teeth of hundreds of delayed mines, set to catch less wary opponents. The fine buildings around the Place d'Armes suddenly blazed out into terrific flame, preceded by violent explosions, and despite the desperate efforts of the reserves, assisted by the French citizens, they were destroyed. The 5th Canadian Mounted Rifles (Montreal), pressing forward with a machine patrol, surrounded and finally captured a party of German

officers and men, equipped with all the latest devices for destruction. Dividing the German officers between them, they spread out over this section of the town and made the prisoners disclose by the maps in their possession where scores of other delayed mines had been placed.

In these operations Brutinel's Brigade, with armoured cars and trench mortars which could be fired from trucks, did magnificent work; but their most telling efforts came after the evacuation of Cambrai. They plunged down the main roads after the retreating Germans, cutting off large parties and destroying what slender defences the enemy had constructed. With Canadian cavalry patrols they seized the high ground at Croix St. Hubert. Later the Strathcona's Horse and the Canadian Dragoons, slicing into isolated parties of the enemy, made their way to Thun Lévêque, a large town on the Cambrai-Denain road, where they connected up the flank of the hard-fighting 2nd Division.

Cambrai was another Canadian victory. It was not until late in the afternoon that the British Third Army, which certainly had had a long road to travel, joined up on the north-east.

Iwuy, across the Canal de l'Escaut, had been converted into a formidable fortress by the enemy, who at this point made desperate efforts to prevent the Canadians' successful attack spreading north. The motor machine guns worked round this and cut it off from any possible assistance, but so determined was the fight put up by the enemy that it was not until October 11th that Iwuy was completely captured. So highly did the Germans value this position that, with the mounted machine guns outflanking them, they launched six counter-attacks, costing them at least two thousand men, in attempts to relieve the garrison. The most formidable was that on October 10th, when the enemy suddenly used tanks. The Canadians fought

desperately against considerable odds, but their line had to give way temporarily. Before night fell, however, they had routed and destroyed or captured the tanks and the ring around Iwuy was restored. Six tanks were knocked out by the Canadian artillery.

On October 9th Imperial divisions passed through the tired Canadians and took over while the corps, with the exception of the 3rd Division, which again had seen the heaviest fighting in the battle and had gone into rest at Inchy-Quéant, faced north to where the Germans were still behind the remnant of the Drocourt-Quéant Line. The 1st Division went in between Palleul and the Scarpe. On October 10th the attack was renewed. The 2nd Division were in splendid fettle and their brigades pushed forward for nearly two miles along the Cambrai-Saulzoir road. At St. Vaast, where the road crosses the Ereclin river, there was another hard battle when the armoured cars and the cavalry tried to rush the bridge. It was destroyed three minutes before they reached it, but, nothing daunted, the cars took up favourable positions and the gun crews spread themselves in old German trenches, and kept up a terrific fire on the watchful enemy. Under cover of this the engineers put in a new bridge which let the cavalry — Fort Garry Horse and Strathcona's Horse — over, and by a series of brilliant charges they cleared the ground east of the town of Villers.

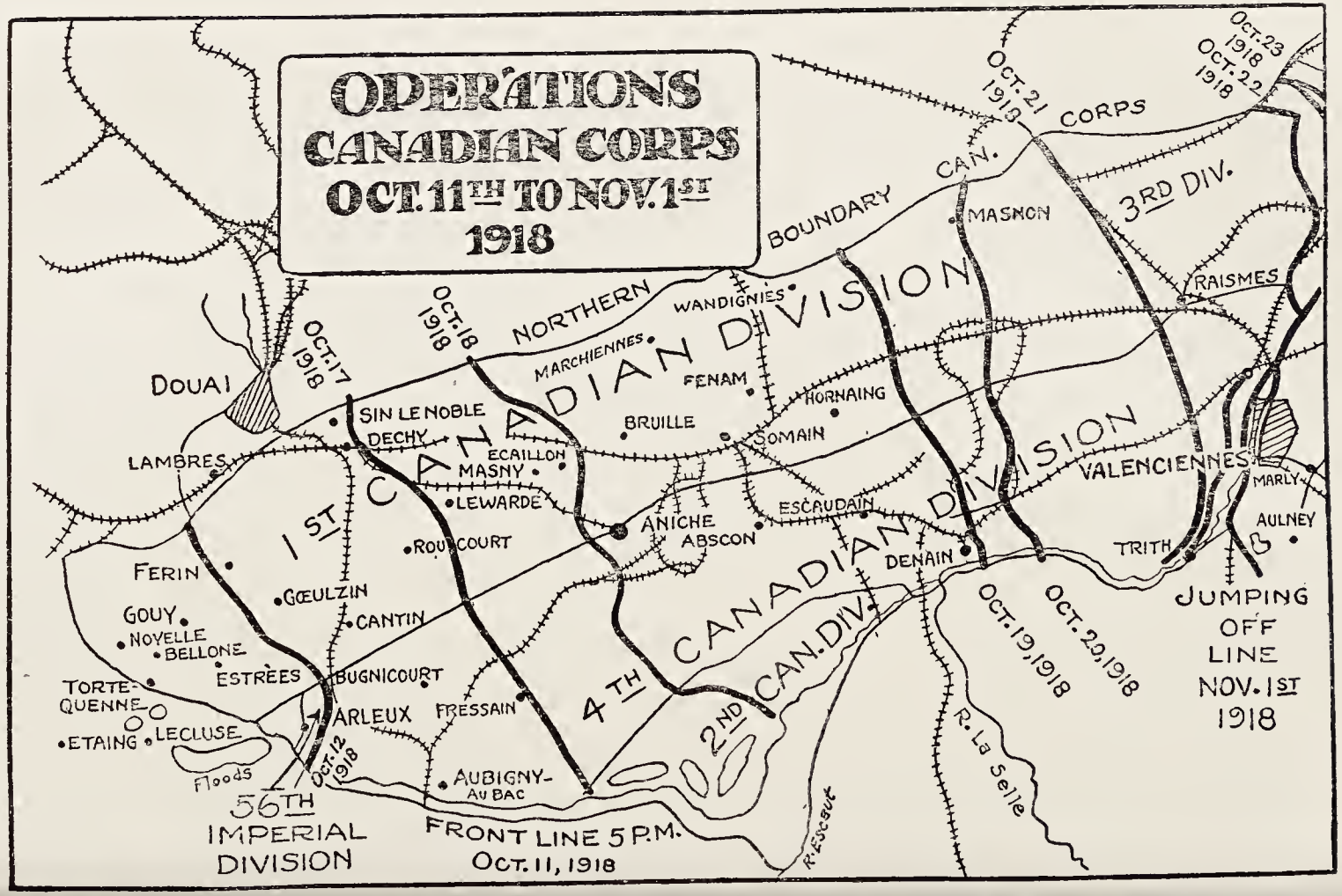
More changes took place in the disposition of the Canadian troops and, on the night of the 10th, they were augmented by two fine Imperial divisions. Word had come through that the enemy was falling back north and south, and it was resolved to press the advantages gained. In this series of battles, which had been one of ever-changing manœuvres, the Canadians had had a decided advantage, and were continually surprising the Germans by turning up at unexpected places. In a captured enemy Intelligence report it

was stated that there were now at least twelve Canadian divisions in action. Crossing over north of the rivers Trinquis and Sensée, the 1st Division's attack met with instant success. It made an encircling sweep, carrying away all resistance, driving north until the enemy had been completely driven out of the area enclosed by the Scarpe and the Sensée as far as the Canal du Nord. The objective of Douai was in sight and nothing could stop the Canadian senior division. They finally, with little loss, gained the river Scarpe at Corbehem, only three thousand yards south of the town.

Sir Arthur Currie, in his report, tersely sums up the result of the Arras-Cambrai operations. He says: —

"Since August 26th the Canadian Corps had advanced twenty-three miles, fighting for every foot of ground and overcoming the most bitter resistance. In that period the Canadian Corps defeated decisively thirty-one German divisions, reinforced by numerous Marksmen Machine-Gun Companies. These divisions were met in strongly fortified positions and under conditions most favourable to defence. In this battle 18,585 prisoners, including 450 officers, were captured by us, together with 371 guns, 1,923 machine guns, and many trench mortars. Over one hundred and sixteen square miles of French soil, containing fifty-four towns and villages, and including the large city of Cambrai, were liberated. The severity of the fighting and the heroism of our troops may be gathered from the casualties suffered between August 22nd and October 11th, and which are as follows: —

	OFFICERS	OTHER RANKS
Killed	296	4,071
Missing	18	1,912
Wounded	1,230	23,279
Total	1,544	29,262


OPERATIONS
CANADIAN CORPS
OCT. 11TH TO NOV. 1ST
1918
OCT. 21 1918
CORPS
OCT. 23 1918
OCT. 22 1918
CAN.
BOUNDARY
3RD DIV.
MASNON
RAISMES
NORTHERN
WANDIGNIES
OCT. 18 1918
OCT. 17 1918
MARCHIENNES
CANADIAN DIVISION
FENAM
HORNAING
DOUAI
SIN LE NOBLE
DECHY
BRUILLE
SOMAIN
LAMBRES
ECAILLON
MASNY
LEWARDE
VALENCIENNES
MARLY
AULNEY
ESCAUDAIN
ANICHE
ABSCON
1ST CANADIAN DIVISION
ROUCOURT
TRITH
DENAIN
FERIN
GŒULZIN
CANTIN
GOUY
NOYELLE
BELLONE
ESTRÉES
BUGNICOURT
TORTEQUENNE
ARLEUX
FRESSAIN
ETAING
LECLUSE
Floods
OCT. 12 1918
AUBIGNY-AU BAC
4TH CANADIAN DIV.
2ND CAN. DIV.
OCT. 19, 1918
OCT. 20, 1918
R. La Selle
JUMPING OFF LINE NOV. 1ST 1918
56TH IMPERIAL DIVISION
FRONT LINE 5 P.M. OCT. 11, 1918
R. ESCAUT

"Considering the number of German divisions engaged and the tremendous artillery and machine-gun fire power at their disposal, the comparative lightness of our casualties testified to the excellence of the precautions taken by the divisional, brigade and regimental officers to minimize the loss of life, having ever in mind the performance of their duty and the accomplishment of their heavy task."

The divisions of the Canadian Corps were once more in the line alongside one another. On the right was the 2nd Division, facing north from Bouchain, at the junction of the Douai and Valenciennes road to Cambrai, west to Aubencheul-au-Bac. The 4th Division was in the centre, also facing direct north to Palleul, and on the left was the 1st, which the 3rd Division, now rested, was about to relieve.

The enemy was unusually quiet in those days and gave the Canadians valuable rest, but at the same time made them extremely suspicious. On October 17th patrols were sent across the Canal du Nord, and so little opposition was encountered that all the divisions crossed over and took up the pursuit of the enemy. The Germans were again in full retreat. All the reconnoitring had to be done by machine-gun patrols fighting against the enemy rear-guards, and in this species of warfare the Canadians had the superiority. At one place the 2nd Division put on a fake attack with the object of finding out the enemy's strength. Thousands of smoke bombs and shells were fired and pandemonium let loose. By means of these tactics a bridge-head at Sailly-en-Ostrevent was rushed and several machine guns and twenty-two prisoners were captured. The 3rd Brigade, under Brigadier-General Tuxford, pushed out to find the full strength of the enemy and managed to gain entrance into the remnant of the Drocourt-Quéant Line, driving along the trenches and capturing scores of prisoners and machine guns. Powerful counter-attacks

drove our troops back for a period, but they regained all their positions before nightfall, and in the exchange the Germans sustained heavy losses. The 1st Division had gained a solid front running from Hamel to Estrees and Noyelle, and were ready to advance again.

A heavy mist that settled in the mornings and lasted generally until dusk screened the enemy's movements and prevented any use being made of the air force. Every bridge and cross-road encountered had been systematically blown up, but the Canadian engineers were prepared for this and they were quickly repaired so that the whole unit could move forward in perfect corps formation, artillery, supplies, and hospitals following with splendid efficiency. The light railways made headway with the advance. It was a grim, pressing, undeniable pursuit, inviting the enemy to the battle which he refused, knowing there could be nothing but defeat if he again seriously joined the issue.

To the 1st Brigade, men of the 2nd Battalion (Eastern Ontario), came the honour of entering Douai. The city had escaped the fate of Cambrai and had not been destroyed, but every factory, warehouse, and private dwelling had been sacked. The civil population, for the most part, had been evacuated, but the few that remained came from their hiding-places with flags and banners, hidden from Teuton eyes for four weary years, and gave the Canadians an enthusiastic welcome. "Long live the brave Canadians," was the cry — and shouted in excellent English. They literally mobbed our troops as they pressed through in splendid fettle, wreathing the artillery with flowers and offering from their meagre stocks cups of delicious coffee to those who had released them.

Beyond Douai there is a large industrial area where the Germans had forced the Belgians to labour up to the last minute. In these later engagements they had no time to evacuate the civilian labourers and they

Canadian Official Photograph

GENERAL TUXFORD AND STAFF OF THE 3RD BRIGADE

left them as an embarrassment to the advancing Canadians. The dense population had been left without food and it was a decided strain on the Canadian transport to feed all these people, whose numbers before the corps reached Valenciennes aggregated over seventy thousand. On the two days of October 17th and 18th the following towns and villages were liberated, and in each the Canadians met with tremendous receptions — and demands for food: Ferin, Courchelettes, Gœulzin, Le Raquet, Cantin, Roucourt, Villers-au-Tertre, Brunemont, Aubigny-au-Bac, — where the British had fought valorously in 1914, — Féchain, Fressain, Bugnicourt, Dechy, Sin-le-Noble, Guesnain, Montigny, Pecquencourt, Loffre, Lewarde, Erchin, Masny, Ecaillon, Marquette, Wasnes-au-Bac, Auberchicourt, and Monchecourt.

Pressing forward, in spite of all handicaps, the 4th Division found themselves in sight of Denain, the most important city between Douai and Valenciennes. The Germans had taken up positions in force, but the Canadians had pursued them in such strength that it was decided to endeavour to destroy the enemy works with artillery and gain the town. The foe made a valiant resistance, but, aided by motor machine guns and trench mortars, the men with the green square on their uniforms charged forward. Fortunately the Canadians had to face but little artillery fire, the Germans having lost too many guns to venture them in rear-guard actions. The men of the 12th Brigade, with the 38th (Ontario) and the 72nd (British Columbia Highlanders) made short work of those who attempted street fighting and drove them back through the city. By the time the Canadians had reached the centre of Denain the retreating enemy's main body was flooding out in terror to the east. The town cleared, the Canadians found that an Imperial division had come up on the right from the south and the city was positively ours. Again there were several

thousands of civilians to be attended to, but the 4th, in gallant fashion, left them two days' rations, trusting to luck to obtain more for themselves as they pressed on the attack.

The weather had become bad for offensive work. The rain was coming down in torrents, but the men from overseas were undaunted. The enemy, too, was again showing desperation in his methods of defence and sacrificing many men and machine guns in an attempt to gain time. It was obvious that he intended to make his main stand behind the flooded area of the Canal de l'Escaut in front of Valenciennes. The Canadians had a scheme to outwit that plan, but time was the essence of its success. Hasnon, Les Faux, Wallers, and Haveluy were captured after some hand-to-hand fighting, the last a large place with an embarrassing population augmented by fugitives from various other industrial villages.

On October 21st the first footing was gained by the Canadians in the important forest of Vicoigne, north-west of Valenciennes, and about a dozen other villages, including Anzin, a suburb of the big city, were captured. Behind Valenciennes the Germans had massed what artillery they could spare, and the unfortunate civilians in these captured towns suffered severely. So intent were the Canadians on the capture of the city that they were inclined to take desperate chances and finish the job on that day, and a special restraining order by General Currie had to be issued.

The 1st Division, which had had no opportunity to refit since the Battle of Cambrai and had been in desperate fighting, was relieved by the 3rd Division. The line was now parallel to the city of Valenciennes, but astride the Scheldt, the 4th Division on the right and the 3rd on the left as far north as St. Amand, on the far side of the forest of Raismes.

The attack was pressed with vigour on the after-

Canadian Official Photograph

DENAIN VETERANS OF 1870 MARCHING PAST WITH THE CANADIAN BRIGADE THAT RELIEVED DENAIN

H. R. H. The Prince of Wales saluting the Flag

noon of October 22nd, and by nightfall Trith St. Leger, Le Vignoble, La Sentinelle, St. Waast le Haut, Beauvrages, Bruay, and practically all of the forest of Raismes were in Canadian hands. On the left the Canal de l'Escaut, which was regarded as an important obstacle to the attackers, had been reached in several places. To the south-west of the town the country had been flooded over a large area and attack from this direction was impossible. North-west of the city the whole country was intersected by irrigation canals used by market gardeners to reclaim the ground, and any attempt from this sector was also out of the question. Behind the flooded area Mont Houy, a mound of considerable prominence on a high and commanding plateau south of the city and near where the Scheldt is joined by the Rhonelle river, and Famars Ridge gave the enemy the best of observation even in bad weather and made a natural defence.

Behind the Valenciennes-Le Quesnoy railway the two Imperial corps operating with the Canadians in the attack had not been able to make much headway, owing to the difficulty of getting up supplies. They were still some distance behind, but they fought on valiantly and two days later were up to their required position, having reached the canal and the western edge of the inundated area.

It was decided to stand fast until the flanking troops had made more progress. The engineers established dumps of material far forward, so that when the time came the bridging of the canal could be completed and the many little streams made ready for the passage of guns and supply teams. The XXII (Imperial) Corps managed to cross the canal and capture Famars Ridge, but they were unsuccessful in an attempt to take Mont Houy, which was the more commanding position.

The Canadian Corps now held the entire western bank of the Scheldt river, including an angle caused

by the stream south of Condé. Attack from here would be costly, and it was more than ever evident that the enemy meant to defend Valenciennes desperately, regarding the city as a pivot on which to base his always accelerated retreat both north and south. A British Highland division, after a desperate charge, managed to gain a footing in the woods on Mont Houy on October 28th, but the next day, by desperate and costly counter-attacks, the Germans drove them off again. Mont Houy had to be taken and held, and it was decided that the Canadian Corps had better carry out the operation. On November 1st the 4th Division, in conjunction with the 3rd Division, were to cross the inundated area to the west and north-west front of Valenciennes, and under cover of this attack the Canadian engineers were to construct what bridges they could leading directly into the city.

The position of the Canadian artillery, now up to full strength and with additional heavy guns, was advantageous. It could fire against the enemy positions on the plateau as well as keep up a frontal barrage. Very strict orders were issued that, if possible to avoid it, the city must not be shelled, and this was not done except for a strong line of machine-gun posts the enemy had constructed in the houses along the bank of the canal. These were soon obliterated. Aulnoy and Marly were also, of necessity, razed by our guns, as the Germans had made them into very strong outposts which would have cost much in Canadian lives to capture by infantry attack.

Smoke screens were used as much as possible in the assault. The air was heavy and damp and this cover remained for a considerable time. The 10th Brigade side-slipped at night across the canal at Thiant, relieving Imperial troops. The assault, timed for 5.50 in the morning, was carried forward in brilliant fashion. It was a most difficult operation, but carefully planned, and the losses of the Canadians

were small. The 46th Battalion (Saskatchewan) and the 50th Battalion (Alberta) did splendid work in wiping out the first resistance of the Germans and breaking the defence. The barrage on the high land and the valley of the Rhonelle was tremendously effective and aided the advance of these battalions, who finally stormed Mont Houy and held on despite three German counter-attacks. Isolated machine-gun posts fought on stubbornly until these Western men had wiped them out with bomb and bayonet. There were terrific struggles as we pushed on with the 44th, 47th, and 50th Battalions, the most strenuous being in the ironworks at Marly.

With the barrage almost perfect, and demoralizing for the defenders, the attacking divisions pushed right on to their objective, the Valenciennes-Maubeuge railway, which was taken on schedule time. Valenciennes was not yet captured, but by this operation its tenure by the Germans was made impossible. The counter-battery fire had smothered the enemy's artillery and many damaged guns had been captured by the infantry. There were over eight hundred German dead counted on the field, and the gallant 10th Brigade alone was responsible for the capture of over thirteen hundred prisoners. Our own casualties were only eighty killed and three hundred wounded.

On the left, in the meantime, elements of the 3rd and 4th Divisions had succeeded in crossing the canal on the bridges which the engineers had rushed to completion under violent fire. The station and the large railway yards, the most complete, from a military point of view, in the district so far captured from the enemy, fell into the hands of 3rd Division battalions. The line in the western section of the city was consolidated that night and our daring patrols fought from house to house through the city. It was a magnificent finish to the battle, and the moment the Germans started their main evacuation it was known to

artillery headquarters, and they punished the retreating enemy badly as they fled over the eastern roads which led from the city. With morning St. Saulve was in our hands and the enemy was still falling back on the ground to the east of this, where he hoped the river Honnelle would further retard our pressing pursuit and give him a chance for fighting breath.

There were over eight thousand civilians released in Valenciennes, and there were scenes of the wildest welcome when the 4th Division battalions marched through the city. But the bulk of the population and all the food-stuffs had been evacuated to Mons, and again there was a heavy drain on the Canadian supplies. A few days after this great city was taken President Poincaré made his state entry into the place. It was the last of the great French cities to be liberated and there were tremendous scenes of enthusiasm. The president called the Canadian commanders to him and congratulated them and their troops on the brilliant work they had done and the careful manner in which they had refrained from damaging the city.

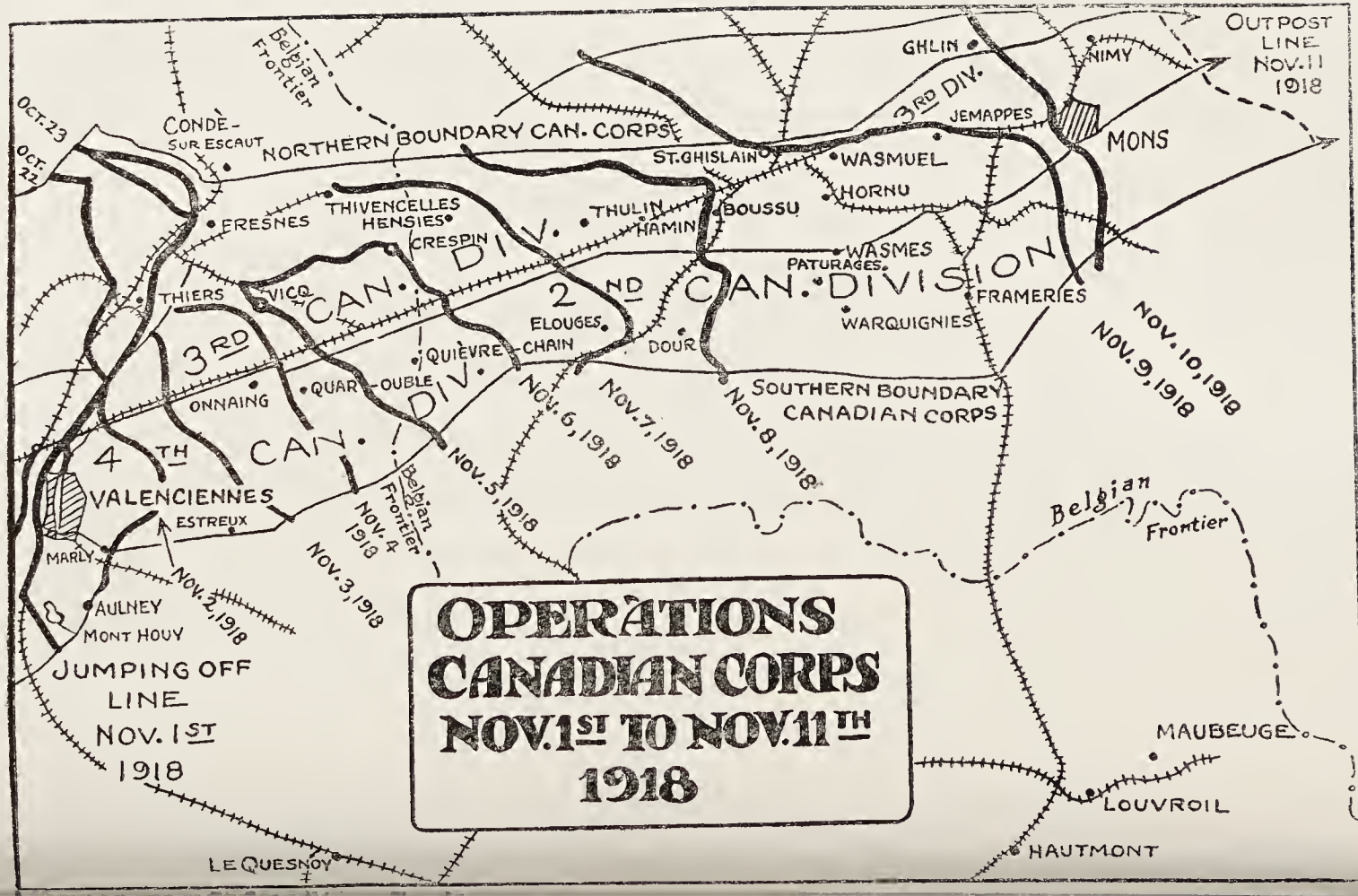
Canadian Official Photograph

THE CANADIANS IN VALENCIENNES

CHAPTER X

VALENCIENNES TO MONS

THE pursuit of the enemy along the Mons road was pressed without delay. The advance of the 3rd Division, north of Valenciennes, over the flooded waters of the Scheldt and its minor tributaries, was particularly difficult, and the enemy's resistance was still stubborn. Slag-heaps from the iron mills and mines stood up like bold fortresses from the quagmire through which the 3rd had to pass, and of these the Germans made little redoubts from which they had every advantage. The 11th Brigade of the 4th Division, with three Ontario and one Quebec battalions, made a gain on November 3rd of over three thousand yards and captured the important centre of Estreux; and finally the 3rd Division, not to be denied, won its way through the flooded area to the Vicq-Thiers railway line, where the going became better. Onnaing and Rombies fell into our hands on November 4th and the important railway bridge on the Escaupont-Quiévrechain railway was captured instantly. The latter town was the last in French territory on the Mons road, Quievrain, across the river Honnelle, being a Belgian town of considerable importance. The defence here was desperate, but the troops of the 4th Division, pushing across the Aunelle river, outflanked the position. They were the first to enter Belgium, and the inhabitants, who had been living in a state of bondage, gave them a wildly enthusiastic welcome. Everywhere there were Belgian flags which had been carefully hidden during four years under the heel of the Hun. From this time on, the black, yellow,


OUTPOST LINE NOV. 11 1918
GHLIN
NIMY
3RD DIV.
JEMAPPES
MONS
BELGIAN FRONTIER
CONDÉ-SUR ESCAUT
OCT. 23
OCT. 22
NORTHERN BOUNDARY CAN. CORPS
ST. GHISLAIN
WASMUEL
HORNU
BOUSSU
THULIN
HAMIN
THIVENCELLES
HENSIES
FRESNES
CRESPIN
WASMES
PATURAGES
FRAMERIES
WARQUIGNIES
2ND CAN. DIVISION
CAN. DIV.
THIERS
VICQ
ELOUGES
QUIÈVRE
CHAIN
DOUR
3RD CAN. DIV.
ONNAING
QUAR-OUBLE
SOUTHERN BOUNDARY CANADIAN CORPS
NOV. 6, 1918
NOV. 7, 1918
NOV. 8, 1918
NOV. 9, 1918
NOV. 10, 1918
NOV. 5, 1918
4TH CAN. DIV.
VALENCIENNES
ESTREUX
MARLY
AULNEY
MONT HOUY
NOV. 2, 1918
NOV. 3, 1918
NOV. 4 1918
BELGIAN FRONTIER
BELGIAN FRONTIER
JUMPING OFF LINE NOV. 1ST 1918
OPERATIONS
CANADIAN CORPS
NOV. 1ST TO NOV. 11TH
1918
MAUBEUGE
LOUVROIL
HAUTMONT
LE QUESNOY

and red ensign of Belgium replaced the tricolour of France. The coal-mines, which were scattered over a large area, were in good order and had been worked by the despairing Germans up to the very last minute. The pumps were still going and on the whole the people here had been well treated in return for their labour. But their joy was supreme as the Canadians reclaimed mining village after village.

Marchipont and Baisieux were taken by the 4th Division on November 6th. Crespin, a flourishing village, undamaged by war, was taken further north. "The enemy's resistance was very stubborn," declares the Corps Commander in his report, "and the 4th Division had to be relieved by the 2nd."

"On our right," the report continues, "we were now getting into the heart of the Belgian coal district —a thickly populated area, where the numerous towns and villages, the coal-mines, and the commanding slag-heaps complicated the task. The 2nd and 3rd Canadian Divisions attacked on the morning of the 7th, and, although by this time the weather had broken and the country was rapidly becoming completely water-logged, good progress was made during the day, the enemy showing increasing signs of demoralization."

The 2nd Division, by clever strategy, cleared Baisieux and grabbed from the Germans a strong point they had established in a sugar refinery north-east of that town. Altogether a general advance of about two miles was made, and even after this the 3rd Division managed to push further along the Mons road for about four thousand yards, taking La Croix and Hensies, north of the main road.

Mons was in sight of the victorious troops from overseas. The advance had again become encouragingly rapid, and towns were gained with but slight casualties. The Canadians in full strength were now across the Valenciennes-Mons road in a direction a

little north of east. The 2nd Division was in a country where villages almost joined one another and were indeed connected by long ridges of slag, ideal defences. The 3rd Division was advancing through a district cut up by reclamation ditches and small ponds. It was a section well suited to defence, but the Canadian patrols pushed on with such vigour that the enemy never had time to organize stiff resistance. He was beaten and running, and many times our cavalry patrols and mounted machine guns plunged into his disorganized rear-guards and took full toll. Picked machine gunners, only, at this period made any sort of desperate resistance.

The next two days the advance progressed favourably and the 2nd Division stormed the towns of Dour, Bois de Boussu, Bois de Epinois, Bois de l'Évêque, Warquignies, Champs des Saits, Petit Wasmes, Wasmes Paturages, La Bouverie, Lugies, Frameries, and Genly. In these towns no less than thirty thousand people were liberated. By the night of November 9th the Canadians were consolidated only three miles south-west of Mons.

The 3rd Division had also been successful in pressing the enemy so hard that it was impossible for him to organize strong resistance. The men of this division captured Thulin, Thievencelle, Hamin, Montreuil-sur-Haine, Boussu, Jemappes, Flenu, Wasmes, St. Ghislain, and Quaregnon. Cuesmes, a suburb of Mons, and many towns north of the canal had also fallen into their hands. The next morning the Canadian troops could easily make out the time on the clock in the great tower at Mons, and many bets were made as to which battalion would be the first at the tower. The spirit of the hard-fighting troops was wonderful; and although they had been several days in fighting that of old would have been called severe, they were keen and anxious to keep the Germans on the run.

To the Princess Pats, the first Canadian regiment to enter the war, came the honour of being the first of the Allied troops victoriously to re-enter Mons. On the night of November 9th the Canadian patrols established posts in the city. They surprised an enemy stronghold and managed to hang on, although desperately counter-attacked. On the left the 49th Battalion (Alberta) had worked well in on the western outskirts.

In the morning came word that German envoys were in the French lines and were suing for peace. The rumour was not believed by the rank and file. Mons was so nearly theirs. All were intent on the capture of the historic city where in 1914 the gallant British "Old Contemptibles" had first fought so desperately. Joyful news arrived from the Commander-in-Chief that Mons must be taken.

To the east of the town there was a considerable eminence where the enemy was beginning to dig himself in. In view of the possible negotiations resulting in a breakdown, it would be a fine defence, and it was essential that he be driven from the position. He clearly meant to make a stand, for his artillery had been brought up and was shelling our back areas heavily, filling all the rest billets in the little towns with gas. So the attack was renewed on the morning of November 10th. The 3rd Division, operating north of the city, had been relieved by an Imperial division. The 4th Brigade, under Brigadier-General C. E. McCuaig, was in the line on our right, and the 18th, 19th, 20th, and 21st, all battalions from Ontario, were under heavy machine-gun fire from the hills on the front. In the afternoon the enemy tried a vigorous counter-attack, but it was broken up with serious losses to him from our artillery fire. That evening the advance was pushed on and this gallant brigade had established itself well east of Mons on the St. Symphorien road. To the left the 7th Brigade, with the Montreal Highlanders and the Royal Cana-

dian Regiment, were suffering from very severe machine-gun barrages. But they worked in desperately and established posts along the canal on the western edge of the city. As night came their patrols pushed into Mons, only to discover that the enemy had completed his evacuation, and inhabitants reported that no Germans had remained after midnight. "In the meantime," according to General Currie's report, "word had been received through the First Army that hostilities would cease at 11.00 a.m. on November 11th, the Armistice having been signed in acceptance of our terms." The city was completely occupied by two o'clock on the morning of November 11th and patrols were through to the high ground on the east beyond the city. Hundreds of inhabitants hastily dressed and came out to welcome their deliverers. There were few casualties in the actual taking of Mons, although the Canadians suffered severely on the two days previous to the declaration of the Armistice. When the prefect of the town insisted on a state funeral for those who had died in entering the city, only five Canadian dead could be found. They were given full Belgian military honours by the civil officials.

The "Cease fire" sounded promptly at 11 a.m. on Monday, November 11th, and was celebrated in the Grande Place of the famous city by a march past of the hard-fighting 7th Brigade. The keys of the city were handed to the brigadier — Brigadier-General J. A. Clark — and on the same afternoon the Corps Commander and his divisional commanders entered the city formally and were given an enthusiastic reception, a special medal being struck for the occasion. The men of the Canadian Corps, at this time of wild rejoicing by the people they had freed, took the great news of the Armistice quietly. The glories of Ypres and Vimy and the Somme had faded into remembrances, but as "spear-heads" and "Foch's Pets"

Canadian Official Photograph

A CANADIAN ARMOURED CAR IN MONS

they had established a new record by breaking the Germans' strongest defences and reaching the furthermost point of the Allies' great advance, which meant final victory in the greatest war that had ever seared the world. They knew that ahead of them lay the task of an army of occupation, but their thoughts turned to those at home and how soon they would be with them. They had gained great glory for Canada; would Canada be proud of them?

Sir Arthur Currie concludes his account of the operations as follows: —

"Between October 11th and November 11th the Canadian Corps had advanced to a total depth exceeding 91,000 yards, through a country in which the enemy had destroyed railways, bridges, and roads, and flooded large areas to further impede our progress.

"To the normal difficulties of moving and supplying a large number of men in a comparatively restricted area was added the necessity of feeding several hundred thousand people, chiefly women and children, left in a starving condition by the enemy. Several deaths by starvation, or through suffering consecutive to privation, were experienced in villages and towns which, being kept under hostile shell-fire and defended by machine guns, could not be captured rapidly by our troops.

"The fighting was light up to the Canal de l'Escaut, but stiffened perceptibly from there on until the capture of Mons, and added a great deal to the physical exertion caused by such a long advance in adverse weather. . . .

"When it is recalled that since August 8th the Canadian Corps had fought battles of the first magnitude, having a direct bearing on the general situation, and contributing to an extent difficult to realize to the defeat of the German armies in the field, this advance under most difficult conditions constitutes a decisive

test of the superior energy and power of endurance of our men.

"It is befitting that the capture of Mons should close the fighting records of the Canadian troops, in which every battle they fought is a resplendent page of glory.

"The Canadian Corps was deeply appreciative of the honour of having been selected amongst the first for the task of establishing and occupying the bridgeheads east of the Rhine. A long march of 170 miles under difficult conditions was ahead of them, but they ungrudgingly looked forward to what had always been their ultimate objective — the occupation of German soil.

"Between August 8th and November 11th the following had been captured: Prisoners, 31,537; guns (heavy and field), 623; machine guns, 2,842; trench mortars (heavy and light), 336.

"Over 500 square miles of territory and 228 cities, towns, and villages had been liberated, including the cities of Cambrai, Denain, Valenciennes, and Mons.

"From August 8th to October 11th not less than 47 German divisions had been engaged and defeated by the Canadian Corps, that is, nearly a quarter of the total German forces on the western front.

"After October 11th the disorganization of the German troops on our front was such that it was difficult to determine with exactitude the importance of the elements of many divisions engaged.

"In the performance of these mighty achievements all arms of the corps have bent their purposeful energy, working one for all and all for one. The dash and magnificent bravery of our incomparable infantry have at all times been devotedly seconded with great skill and daring by our machine gunners, while the artillery lent them their powerful and never-failing support. The initiative and resourcefulness displayed by the engineers contributed materially to the depth

Canadian Official Photograph

THE ARMY COMMANDER TAKING THE SALUTE IN MONS: THE CANADIAN BRIGADE WHICH CAPTURED THE TOWN AS GUARD OF HONOUR

and rapidity of our advances. The devotion of the medical personnel has been, as always, worthy of every praise. The Administrative Services, working at all times under very great pressure and adverse conditions, surpassed their usual efficiency. The Chaplain Services, by their continued devotion to the spiritual welfare of the troops and their utter disregard of personal risk, have endeared themselves to the hearts of everyone. The incessant efforts of the Y.M.C.A. and their initiative in bringing comforts right up to the front line in battle were warmly appreciated by all."

CHAPTER XI

FROM MONS TO THE RHINE

ALTHOUGH there were persistent rumours, and we were all aware that the Germans had asked for an armistice, very few of us believed that the negotiations would have any immediate results, as it did not even enter our dreams that the Germans would be willing to accept the terms which we knew would be offered them, were the Americans not allowed to interfere to too great an extent. Consequently the announcement of the suspension of hostilities on the morning of the 11th of November, and, later, of the terms which Germany was glad to accept, came to us as a great surprise — almost an incredible relief, not altogether unmixed with disappointment. For although aeroplane lookouts and gas sentries were no longer a necessity, and an undisturbed night's sleep was assured, as well as "going into the line" and all its attendant discomforts having become a thing of the past, still, a great many of us (particularly of those units not in the line at the moment) felt greatly disappointed that after so many years of waiting we were not to have another "go" at the Boche, and were not to chase him into his own country and bring home to the German people a few of the realities of the war which they had so gaily started. That the German people had no conception of the defeat of their army in the field is fully demonstrated by the manner in which they fêted their soldiers on their return to the large towns and cities, and the bombastic cartoons and articles singing the praises of the "unbeaten field gray." We were naturally disap-

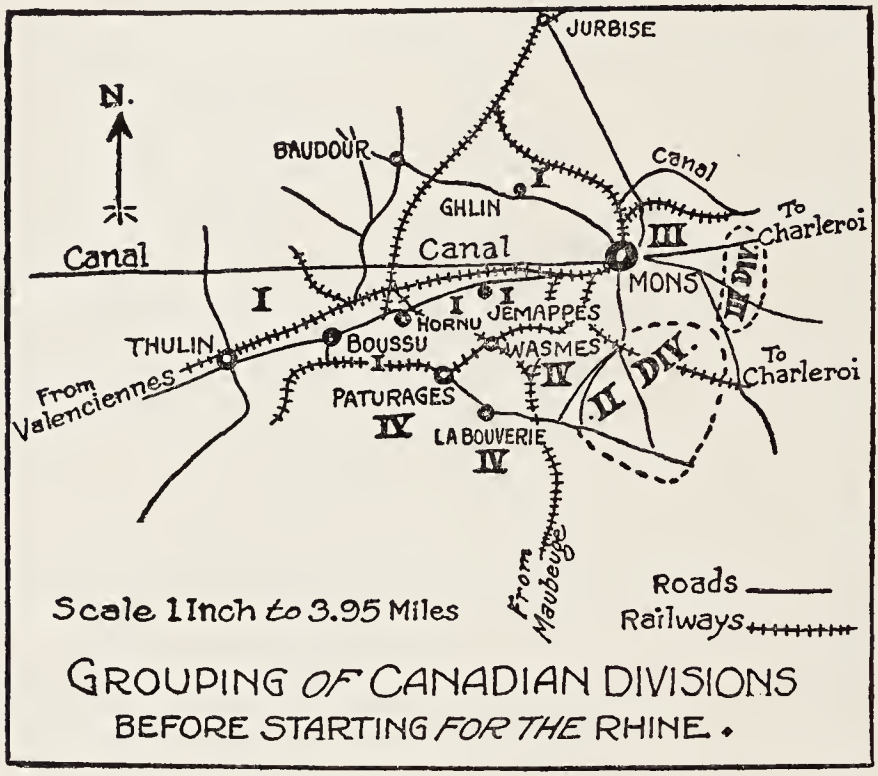
pointed that we should not have an opportunity to convince the German people that their proud armies were beaten, and to drive the lesson home in such a way that it could never be forgotten.

At first there was much speculation as to what would be done with us, and the " Home before Christmas " cry became very popular. This most optimistic view of things was not justified by subsequent events; in fact on the 13th of November it was announced to us that we were to march to the Rhine and that an orgy of polishing and painting would begin at once. For the purpose of the march the Canadian Corps was to be transferred from the First to the Second Army and was to march on a two-division front, with a cavalry screen in front, the 1st and 2nd Divisions to lead, followed by the 3rd and 4th. However, as no moves were to be made until the 17th, all hands were busy with the cleaning up process. The accumulation of a store of polish for the march was a serious problem, and in spite of the best efforts of the Y.M.C.A. all available stocks were soon bought out and petty theft became rife in the land. In spite of a free exercise of the soldier's privilege — grousing — everyone worked hard and in a remarkably short time things began to look very well indeed.

At the time of the signing of the Armistice only two divisions of the Canadian Corps were in the line, — namely, the 2nd and 3rd; so, in order to start the actual march with the least possible confusion, a readjustment of the divisions in the corps area was necessary. The general grouping of the divisions at the time of the Armistice may be seen in the accompanying diagram. On the 15th of November the 1st Division began to concentrate in the villages north-west of Mons, the 2nd and 3rd Divisions crowded as far east as possible, and the 4th Division came into the area south-west of Mons.

Owing to the congestion of troops in the area, units

with a large number of horses as compared with the number of men, such as a battery of field artillery, found that the accommodation for horses and harness, to say nothing of vehicles, was not all that could be wished for. It is very trying for a driver to spend hours polishing the steel on his harness when he is



GROUPING OF CANADIAN DIVISIONS BEFORE STARTING FOR THE RHINE.

forced to leave the greater part of it out overnight and finds it a mass of rust the next morning; and no matter how often some horses are groomed, if the ground is muddy they will always find the muddiest place to roll in as they are about to be harnessed.

We could not help sympathizing with the inhabitants of Belgium as a whole, though in many cases our feelings were quite the reverse. However, for the most part, the better class of Belgian farmer and the people of the larger towns behaved admirably, and

were decidedly anti-German and pro-Ally; but the attitude of many of the peasants was very puzzling. That they were short of food there is no doubt; but also there is no doubt that they would take the share of a neighbour's rations if it could be got by hook or crook. They frequently sold to the Boche food sent by the various relief organizations; and it was tactless (to say the least) of many of them to give free expression to pro-German sentiments. Many of the inhabitants were quite willing to accept assistance of any kind, — food, money, the loan of horses, harness, and wagons, or the help of the men in work around the farms, — but they showed not the slightest gratitude for it, and if the assistance was not offered they did not hesitate to demand it; when it could not be granted the usual comment was: "We'd sooner have the Germans here than you." All units did everything in their power to help the peasants; and I know that in the case of the artillery to which I belonged, besides the food distributed by the authorities, there were always children who drew their meals from the cook-house; the officers' mess fed all the people in the house where it was situated and frequently many of the worthy host's friends as well. In many cases, of course, requests for help could not be granted. We expected to move at any time and harness had to be cleaned; consequently when a man asked for a wagon or two to transport himself and his family and his *lares et penates* to a village about a week's march away, he had to be refused; nor could fatigue parties by the score be furnished to assist in manuring all the surrounding fields. The refusal of such requests as these caused more grumbling and cursing of the British than one could have believed possible. There is, thank Heaven, the opposite side of the picture. Some of the people were almost pathetically grateful for the merest act of civility, not to mention a kindness. One old man and his wife moved out of their

house to the barn, taking only a few blankets and an old mattress, in order that the troops billeted in the house might be more comfortable, and it was with the greatest difficulty that they could be persuaded to move back into their house; also out of their meagre stock of food they insisted on giving all the men billeted there a late meal every night. Many people always gave the troops a cup of hot coffee and, if possible, a bit of bread before the reveille parade; and one man who had buried some wine in his garden in 1914 dug it up and gave over half of it to the Canadian invaders. We felt we could not do enough for people like these; and while we feel great gratitude to the people of Belgium as a whole, still the cases of pro-Germanism were too numerous to be entirely overlooked or forgotten.

Once the march started, all were kept fully occupied and saw practically nothing of what occurred except what happened to their own units. The route led for the most part through small villages, and the latter part of the march in Belgium was through very hilly and heavily wooded country, the 1st Division passing through the northern part of the Ardennes forest and the 2nd Division advancing further south. We were instructed to march under active service conditions; i.e., all officers to carry revolvers, steel helmets to be worn, and extra precautions to be taken with guards and piquets at night; a cavalry screen covered the whole force; in addition to which each column was covered by its own advanced guard, and outposts were established when the column halted. The march was started with each division on a three-column front; i.e., "A" group, 1st Division, was directly under the orders of the General Officer Commanding the 1st Infantry Brigade, and consisted of the 1st Infantry Brigade, 1st Brigade Canadian Field Artillery, and the corresponding number of Engineers, Army Service Corps, and Army Medical Corps re-

quired; "B" group was made up of the 2nd Brigade; "C" group of the 3rd Brigade with the 14th Brigade Canadian Field Artillery attached from the 5th Divisional Artillery, and the 13th Brigade C.F.A. with an infantry brigade of the 2nd Division which was similarly organized for the march. Each group marched on its own front. The divisional troops not allotted to brigade groups followed the leading groups a few hours' march behind and were known as "D" group.

On the 18th of November we moved north, the 1st Division on the right and the 2nd on the left, into the XXII Corps area to be immediately in rear of the place at which we were to cross the outpost line, and, getting in at dusk, proceeded to settle down for the night in the poorest billets we had throughout the whole march. The advanced guard had crossed the outpost line at 9 a.m. that morning and the march to the Rhine had at last started. The next day we received orders to spend the day cleaning up and rearranging the distribution of loads that had not been found suitable on the previous day's marching.

Although we had expected to move, the order to proceed with the cleaning up drove all thoughts of a move out of our heads and we were caught quite unprepared when an order was received at 2 p.m. that we were to march off an hour later. This move was not, however, a general one, but merely concentrated the division more forward in its area. The 4th Division at the same time closed up into the area vacated by the 2nd Division. The 3rd Division did not have to move, as it was already well forward, having been in the line at the time the Armistice came into effect. After a hurried march in a heavy mist, we arrived at Soignies, where the greater part of "B" group of the 1st Division was concentrated. The mist made the guiding very difficult, as it was practically impossible to see more than ten yards ahead, and in the

traffic in Soignies the column was frequently broken. Also, as the march had been undertaken on the most hurried and necessarily vague instructions, no one was exactly sure of the destination, and in the streets it would take some time to discover a lost wagon. As it usually happens, the only wagon which became lost for any length of time was the officers' mess cart. This was picked up by the guide outside a brightly lit *estaminet.*

Our billets in Soignies are worthy of special attention. The billeting officers were besieged with requests to have the troops billeted, — a vast change from all previous experiences, — the people seemed delighted to have soldiers in the house, and even the horses were made welcome. Plenty of cover was available for harness, and in some batteries all the horses were under cover. The Germans had not endeared themselves to the inhabitants of Soignies, and our welcome in the various households was in direct proportion to the hatred of the Boche. We remained halted all day on the 20th; and with the excellent facilities for cleaning and the good cover, the equipment showed a great improvement and was in splendid condition when the advance was resumed on the 21st.

On the night of the 20th the Brigade Headquarters gave a dance at the house where they were billeted; there was a tremendous lot of bad French talked, but the good feeling knew no bounds, and words are helpless to describe the pandemonium which broke loose when the owner of the house (a short, fat, important-looking man, with a face the colour of a tomato) mounted a chair and under the influence of B.E.F. canteen " Haig and Haig " made a speech in what he optimistically called English. The interpreter was requisitioned to make a reply, which he did for the space of about twenty minutes. None of us understood it, but we cheered vigorously during his rare pauses for breath, and apparently a great impression was made,

for on its finish a wild orgy of handshaking took place, and our hostess beamed with delight, while our host became more like a pouter pigeon than ever. Any dancing we did quite made up in vigour for what it lacked in grace.

Our move on the 21st was a short one, and as it was mostly off main roads we were not behind the infantry and made excellent time, arriving in very good billets at about one o'clock. We were again treated royally; and while the dance was not repeated, compliments were exchanged much more vigorously than before, and every man we met in the street insisted on stopping and shaking hands with us, and of course the usual interchange of bad English and worse French took place. At this stage of the game we had our first experience of what was later to be the cause of a great deal of annoyance — a horse mysteriously "strayed" and was found in a butcher's shop. Fortunately he was hidden in a shed and had not yet died a violent death; so he was recovered, and for good measure we took another horse, also wearing a government brand.

On Sunday, the 24th of November, we moved again. The weather had been fine, but very cold, with a mist and heavy dew at night; consequently the roads were very slippery, with the result that we made poor time and had constant trouble with horses falling. In the early morning we had to go up one or two steep hills, and it was only with the greatest difficulty and the free use of drag ropes that we managed to get up at all. The march this day was a long and tiresome one. We were on the main roads most of the time, and as the railways had not yet been repaired the quantity of lorry traffic encountered was very large. This together with the frightful condition of the roads made our march a difficult one. A certain number of refugees on foot and in slow-moving carts were still to be seen, and these people did not help us in our difficulties. There is no person (unless it is an

American lorry driver) more wilfully ignorant of traffic regulations than a Belgian peasant. He will not get out of the way, and is more often than not on the wrong side of the road; he invariably chooses the narrowest part to halt in and generally slews his wagon round sideways for good measure. The one on foot with a wheelbarrow is worse. He seems to try to get run over and is probably the greatest cause in Belgium for wear and tear on brakes and for wear and tear on the temper of the drivers and, incidentally, on the English language.

We were now on historic ground, for towards the end of the march we passed Quatre Bras and for some hours had been toiling down the road travelled by Napoleon in the "Hundred Days." Here and there we passed broken-down lorries bearing the German eagle painted on their sides, and at Nivelles station we saw a large number of partially dismantled German aeroplanes. On an ex-German aerodrome a number of our machines were landing and R.A.F. lorries were parked by the roadside; mechanics were busy putting up hangars; wireless installations were already complete.

Except for the abandoned German material, the country showed little or no signs of war. A great many more men were to be seen in the fields than one saw in France and the war region of Belgium, and the rich land, with numerous low, whitewashed farmhouses with their squat outbuildings, generally half-buried in trees and high thick hedges, gave the country a contented, prosperous look. The absence of fences and of pastures was most noticeable; all that seemed to mark a boundary was a deeper furrow, with here and there a stone corner post; the cattle seemed to do most of their grazing in the wide ditches by the side of the main roads and in the orchards; the land, apparently, was too precious to let acres of it be used for mere pasture for a few cows. Every inch that would grow

anything was cultivated, and cultivated with a care and thoroughness that surprised us. The trees (where they had not been cut down by the Germans) were magnificent, and showed the same painstaking care that could be seen everywhere in the gardens and in the fields.

The day before, instructions had been given that only the 1st and 2nd Divisions with corps troops would proceed to Germany, and also that only the Second Army would cross the Rhine. This adjustment was due to the thorough destruction of all railways and roads in the battle areas, and the immense amount of extra supplies made necessary by the food situation in Belgium. The destruction of the railway between Valenciennes and Mons defies description. There was not a single rail undisturbed in some way, all bridges were down, culverts blown up, and for long stretches the road-bed itself destroyed. This threw all the supply work on the lorries, and, consequently, on the roads, which were already well burdened with the normal amount of traffic. That these difficulties were overcome as well as they were says a great deal for the skill and energy of those who were responsible for the supply of the troops and of the civilians. It is a miracle that the situation could be handled at all; and while the march was delayed later by the acuteness of the ration situation, it was never so serious as to threaten dangerously arrangements as a whole, and there were no cases of real suffering on the part of man or beast.

We were again in much congested billets near Quatre Bras, and the heavy dews and ground mists already referred to had made the ground very muddy. The consequence was that everything got dirty, and that source of all evil, the officers' mess cart, got stuck going into the field where we had our horse lines. The people at this particular place were much displeased at our arrival and the billeting parties were greeted

with a general chorus of "*Pas ici, monsieur.*" It appears that at no time had any number of Germans been billeted there (and therein the Germans showed better taste than we did), and the people resented troops of any sort. Throughout the march it was curious to see the varying attitude of the people — where the Germans had lived we were received as liberators and given an enthusiastic welcome, but where they had not lived we were received as unwelcome intruders.

The following day we resumed our march. It was a miserable day, a raw, cold wind blowing, and frequently heavy squalls of rain. The roads were not in good condition; and as our direction was almost due east and the main road ran south-east, we were marching on side roads nearly all the time, in addition to which we travelled by a very zigzag route, which made the distance marched nearly double the distance as the crow flies.

We passed some wonderful old places that day. Shortly after we left the main road we were proceeding up a narrow, deep valley when we came on a space slightly more open than the rest of the valley, with a cluster of farm buildings in it, and above it, perched on a steep hill, a great square stone house, once the refuge for the peasants beneath in times of stress, or the safeguard of the owner from his enraged neighbours. It lacked all the beauty of the châteaux of the south of France, or the grandeur of the old castles of England. It was like the Belgian peasant, strong, ugly, and just sufficient for its own purpose. There were a few narrow windows, hardly more than loopholes, high up in the walls and well out of the reach of any scaling ladders. The only visible door was a huge double gate, bound with great strips of iron and studded all over with bolts. A sort of oriel window, only with loopholes instead of panes of glass, overhung the gate. Even to-day the place has an appearance of

endurance and strength that seems to dominate all the surrounding country, and in the days of Louis IX no troops could move peacefully along that valley, as we were doing, unless with the good will of the lord of that forbidding manor. We halted for a few minutes opposite the place and an old man came out of one of the cottages to look at us. He told us that the house on the hill was built in 1206. It is now inhabited by a peaceful Belgian farmer and his family, the people who own it (the old man told us that it is still in the possession of the descendants of the original owners, the present occupant being a tenant) living further up the valley in a less picturesque, but much larger and more comfortable-looking house. Although its warlike purpose is a thing of the past, there are no new windows in the outer walls and the only entrance is still the old iron-studded gate at the top of a rocky road built up the steepest part of the hill.

Later in the day we passed the ruin of an old abbey. It is apparently quite an historical spot for tourists, for there is a little shop built up against one of the walls where picture postcards and souvenirs of it can be purchased, and there is a very flamboyant *estaminet* across the road. The most interesting part of the ruin is the garden which once ran up the hill for about a mile on the eastern side of the valley. There is nothing but a tangle of weeds now and apparently it is not thought much of by the people who are exploiting the ruin. The hillside is very steep and the garden runs up in a series of terraces formed by stone walls, which, judging by the ruins, were evidently beautifully decorated with carvings in the days when they were new. The old walls are now crumbling away and are covered with moss, lichen, and a tangle of creepers. The stone walks, made of slabs about four feet square, are almost obliterated, but here and there a few yards of them may still be found.

The following day we remained halted and did as

much cleaning up as possible. The rain and mud of the previous day's march had left us in a sorry mess and all our previous work seemed to have been done to no purpose. We were hardly in a fit condition to take the road next day, but nevertheless we started off on the 27th of November for the longest single day's move we made.

The roads used were again nearly all side roads, but not so muddy as those of the two previous days, and our route was once more of a most zigzag character. The march was very long and very hard; uninteresting and most monotonous. It was pitch dark when we turned into our horse lines, through a narrow gate with a deep ditch on each side. The officers' mess cart, as usual, came to grief by falling into one of the ditches. Our billets were again very congested. We received orders that same night that we should move off the next morning, so no attempt was made to unpack anything more than bare necessities, and everyone was so fagged out that even St. Lawrence's fiery couch would have seemed a bed of feathers.

On the 28th of November the march was again continued. A few days before this the two divisions had narrowed down to a two-column front, and from this time on each division, owing to the scarcity of good roads, advanced in one column. The weather from now on was very bad, and the ration trouble started. The rations which should have arrived on the 27th did not come to hand, but as the move on the 28th was a short one we went ahead without them.

The country through which we had been moving had been rolling country, with no very bad hills. However, on this day we changed direction and began to move east-southeast instead of in the easterly direction we had been travelling. We began to approach the Meuse river and we had some very big hills to negotiate (the officers' mess cart, as usual, giving trouble). We crossed the river at Sclayn. The Meuse river at this

point flows in a deep valley with high hills and cliffs on both sides. The road as far as the Meuse was good, but once we crossed the river we found that the road on the south bank was in a terrible state. Broken-down German lorries now became very numerous, and we struggled on with the mud nearly a foot deep and of that claylike kind that gets on everything and seems to defy all efforts to remove it.

Our destination was Andenelle — a little village on the outskirts of Andenne. The people of Andenne made us very welcome, for here the Germans had committed some of their worst deeds in Belgium. Out of a small village they had shot four hundred men and many children; they had burned houses; and in a near-by convent their conduct had been more like that of a band of enraged apes than of soldiers of a civilized nation.

Andenelle is strung out along the road on the south bank of the Meuse, with a few short streets running back to the foot of hills immediately behind it. In one place where there is a break in the hills, a street runs back at right angles to the river, and off this are little side streets running up hills so steep that the ground floor of one house is often on a level with the roof of the next. Each house has its small garden terraced up by a wall on the steep side of the hill, and every little patch of earth among the rocks is carefully cultivated. The village must be beautiful in good weather, but when we arrived it looked anything but cheerful. The roads were muddy, great dark clouds hung about the tops of the hills, and the rain came down in torrents. Guns and wagons were pulled to the side of the road where the least muddy places could be found, and the horses were picketed out in fields which were soon churned up into seas of slimy clay.

Our rations had been arriving later and later each day; on this occasion they failed to arrive. Fortu-

nately our quartermaster-sergeant was a good one and we had built up a fair reserve which we were able to draw on, and so the horses and men did not suffer greatly; but a further move was out of the question. The difference between the good and bad drivers became most apparent, and fortunately we had very few bad drivers. The majority of drivers got out billhooks and borrowed scythes and cut their horses green forage wherever it could be found. There were many arguments with the farmers, and a good many francs changed hands during the course of the afternoon; but all the animals were fed, and our cooks managed to eke out the reserve of food for the men.

The railways were still out of commission and rations were being hauled by lorry, on roads already congested, a distance of over one hundred miles. On the 29th the 2nd Division, which had been more fortunate in the matter of rations, renewed its advance and by nightfall the leading troops had reached Villers St. Gertrude, but the 1st remained halted to enable it to catch up with the rations. We had received orders that we should leave as soon as the rations came in, so we " stood to " all day. Very little cleaning was done, as the greater part of the time was spent harnessing and unharnessing on false alarms, and the rest of the time in getting food for the horses. I believe we were criticized very severely by the staff for not cleaning; they were always firm believers in cleanliness being next to godliness, and comfort for man and beast as far as they were concerned came far down the scale. Night came without the arrival of any rations, which meant that for two days we had received no supplies.

The following day was again a day of uncertainty and no rations. We still had a very small supply in the cook-house, but after the noon feed we had nothing for our animals. About one o'clock we started forward. The column in rear of us had received their rations and proceeded to close up on us and were mov-

ing into our billets as we moved out. We left the Meuse at Huy and proceeded to strike into the Ardennes hills. The country was very hilly and heavily wooded, the villages for the most part very scattered and very poor, and owing to the great amount of rain which had fallen recently the roads were in a deplorable state. On the 30th we were marching along a road beside a stream in the bottom of a deep valley, with heavily wooded hills rising sharply from both sides of the stream. We passed few houses and did not leave the valley until dark. We arrived some hours later at a small, very much scattered village, and proceeded to try to make the best of it in the inky darkness and with no rations. However, after we had been in about an hour, the long-looked-for ration wagons arrived; and although the quantity was very skimpy and what there was was not of the best, nevertheless it was very welcome. The situation had become decidedly serious, and there had been a good deal of grumbling of a rather nasty tone.

A soldier will always growl, no matter what the conditions are; but there is a decided difference in the tone of a growl for the sake of growling and a growl when the man thinks he has a really legitimate grievance. It is impossible to explain this difference to anyone who has not experienced it, but one who has lived with soldiers any length of time can feel it in a minute — it is more a thing you sense than hear, and there had been no mistaking the grumbling of the last two days. When the rations arrived the growl was louder than ever, but the bad tone had gone out of it, and it was the noisy, " make the best of a bad job " grumble, which it was a great relief to hear again.

The next day the 2nd Division moved on, but the 1st Division ration problem was still unsolved and we were to remain halted. Unfortunately we were not told of this, so on receipt of orders to move we packed and hooked up; then orders were received cancelling

this first order and we unhooked. The orders to advance were reissued, and everyone's temper gave out simultaneously; but about 2.30 p.m. the orders were again cancelled, this time definitely, so we proceeded to settle down for another night in Bois et Borsu. We had spent over half a day harnessing and unharnessing, time which might much better have been spent on a greatly needed cleaning up.

On the 2nd of December all was well with the rations and we moved off "according to plan." The weather had changed again and it was clear and not unpleasantly cold. We were now fairly in the Ardennes hills and there was very little level road. The country was beautiful and we kept dropping into fertile valleys, or climbing long hills, from the tops of which we would get magnificent views of miles and miles of wonderful rolling country, heavily wooded, with here and there small whitewashed villages half buried in the trees in the bottom of deep hollows. As the division narrowed down on the march on the 30th to a one-column front, there was practically no traffic on the roads except our own column moving forward; and after the busy, crowded country we had previously been marching through we seemed to have entered a new world. There was an air of peace and quietness over the country that cannot be described; it all seemed to have fallen asleep hundreds of years ago, and we felt ourselves unwelcome intruders. The farmhouses were all old, and nearly all of stone or a sort of mud plaster whitewashed. Nothing was new; the children even seemed to belong to another age; and a troop of knights in full armour would have fitted in with the atmosphere of the countryside far better than we did.

Our march on the 2nd was fortunately a short one, and we were early at our destination. We billeted in a little village that began by a stream in the bottom of a valley and straggled or wound up the hillside for

about three-quarters of a mile along a steep, very unevenly cobble-stoned road that ended in a muddy track. The stolid peasants did not take the slightest notice of us, treating our presence among them with absolute indifference. We had not experienced anylike this before; but it was to be the attitude of the people from now until we reached Germany. Before this the people were always quite decided one way or another — if they were pleased to see us, they let us know it; if they weren't, we found out even more quickly; but they were never indifferent.

The next day we moved on again, still through the same kind of country, winding our way along beautiful valleys or over hilltops that gave us magnificent views of the surrounding country. The hills were getting gradually higher, and, according to the map, we were approaching the height of land dividing the Meuse and Rhine basins. The move was again a short one, but over very bad roads, and the village we billeted in consisted of a little cluster of houses at the bottom of a very steep hill; and as we came over the brow of the hill we seemed to hang in the air and then drop down out of the sky into the middle of a village that did not want us. The attitude of stolid indifference was more marked than ever, and we felt more like intruders than we had ever been made to feel before. Just as we got in, the rain came down in torrents, which did not look promising for our next march.

On the 4th of December, the heads of the two Canadian divisions crossed the border, the 1st at Petit Thier and the 2nd at Beho, with flags flying and bands playing; but as we were in " B " group we merely moved forward and were in position a day's march behind the boundary. The weather was wretched, and the roads more so. The hills were specially trying, and we struggled along on some of them making barely two miles an hour. When it wasn't raining there was

a heavy mist which penetrated everything, and to our great disappointment completely blotted out the view when we were crossing the highest parts of the hills. We were halted over an hour in the pouring rain on the road, while a general went minutely over the first two batteries; but the increasing darkness made him give it up and we were able to move on. It was quite dark when our guide from the billeting party met us and told us we were off the main road and up a hill. We expected a hill, but this one was almost a precipice. The cook's wagon and the ration wagons, as well as the officers' mess cart, all got stuck, and parties of men with drag ropes and extra teams had to be sent back to drag them up. It was very dark and raining and the road had many curves and deep ditches on both sides; so the job of bringing in the broken-down vehicles was not an easy one. After much labour they were all dragged up, but the A.S.C. had again failed us with the rations. We went to bed thoroughly fagged out and the *moral* of the troops was at its lowest ebb.

At this period of the advance, when long marches became the order of the day, we were badly upset by our cooking arrangements. For some reason, best known to themselves, the powers that be have ordained that a battery of field artillery shall have no travelling kitchen. Consequently, when we got in, sometimes very late, the cooks had to unpack a wagon and start fires going; this made the process of getting a meal very long, and when the batteries arrived dead tired, the men were often kept waiting for food for about two hours. It also made starting in the morning more difficult, as the breakfast had to be all over in time to get the cooking utensils washed and packed on the wagon. Another disadvantage of a mounted unit that the men of the other arms of the service frequently overlook is the fact that in the infantry the men are told off to the billets and the

bulk of the work is over. When the gunners reach the end of a day's march, the horse lines must be put up, the horses watered (not always an easy job when water is scarce), the feeds must be made up and fed, stable orderlies and stable piquets mounted, harness rooms must be sought out and the harness cared for, before the men are told off to billets. Shoeing has to be done in all odd moments.

The cooking problem was a source of worry. We could not send the wagon on ahead, as that would mean breakfast about 4 a.m. We had not a wagon to spare, and could not split the stuff into two loads and send one party on ahead; that was out of the question. However, early one morning the chief battery "robber" disappeared with a single horse and the mess cart harness. Late that night the cooks reported that the "robber" was back and had "found" a sort of dog-cart and could they please use it the next day to make an early start and travel by back roads to the new billets. Now the strictly honest policy would have been to find out where and how the cart was "found"; but we were with very obnoxious people that night; we had had a miserably long, cold day, and we had been forced to wait unusually long for our meal, so we breathed a sigh of relief and said "yes."

The cart proved most useful. In it we could send two cooks, one of whom proved to be an expert at map-reading and could find the way by side roads where generals in motor cars did not abound. We built a sort of framework under the cart, and in this way we could send forward all the "dixies" and enough rations for the next meal. As soon as the billeting party had located the cook-house, the dog-cart party set to work to clean it up and arrange it in the most convenient way for handling the meals. By the time the unit arrived, the fires were going and the meal almost ready, and as soon as the horses had been attended to the men could draw their food. In

the same way we could leave breakfast till the last minute, and the dog-cart party could pack up what was left and clean up after the slower moving unit had gone. This cart was the most useful "find" we ever made and stayed with us until we reached the Rhine. It was not considered, however, that we could get it across the bridge under the eagle eye of the inspecting officer, so it was abandoned at our last stopping-place west of the river.

This incident is not elaborated on as a unique incident, by any means, but it is a sample of the difficulties and annoyance met by all units and the various irregular, but efficient methods which were used to overcome them. For example, I have had canteen beer out of a water-cart an infantry battalion had "salvaged." I have seen whisky carried by a battery who didn't trust it in the mess cart, but put it in the baskets in a locked ammunition wagon, while the rounds of ammunition thus crowded out travelled in the mess cart. The No. 1 of a howitzer battery has often found the bore of the gun a most convenient place for his extra kit.

The 7th of December opened bright and clear and the rations arrived in the morning; so all the miserable experiences of the day before were forgotten; the mud, however, remained to be wiped off the vehicles and harness. The whole day was put in at hard work cleaning up, but at night much still remained to be done. Orders were received that evening to cross the boundary line and enter German territory the next day.

Except for the fact that we crossed the boundary line between Belgium and Germany, the day's march was unusually dull. The roads were in fair shape, and we quickly left the hilly country for open, almost flat farm land, the only feature of which was the filthiness and poverty-stricken appearance of the farmhouses which we passed. About two o'clock we came

to a cross-roads, in the centre of which was a boundary post, and we left behind liberated Belgium and stepped into conquered Germany. Although not fought over as were France and Belgium when the Germans entered in 1914, none the less Germany was a conquered land, and we had fought for over four years for the right of entry and had really forced our way in. Our " triumphant entry " was witnessed by a military policeman, an old man, an older woman, and five ragged, dirty, stupid-looking urchins.

We could see in the distance the village where we were to billet for the night, but before reaching it we passed through farm land with the most wretched-looking farm buildings we had yet seen scattered about, and we were becoming decidedly dubious about our billets. Fortunately, the village of Recht proved a most agreeable surprise. All the houses were spotlessly clean inside, the inhabitants were very docile, and while by no means hailed with joyousness, or demonstrations of any particular affection, we were received with much better grace than had been the case far too frequently in Belgium.

One thing that struck us most forcibly was the food situation, — whatever might be the conditions in the towns, here in the country the people seemed to have plenty to eat. We arrived in our billets just at the time of the evening meal of the inhabitants, and in house after house steak and potatoes (and abundance of both) seemed to form the *pièce de résistance.* The bread was not very good, but not nearly as bad as that in the towns and certainly not as bad as pictured in the press. In the officers' mess there was a wordless battle over the use of the kitchen stove. As soon as our cook's back was turned the German *frau* would shove all our pots and pans to the back of the stove and put hers on the front; then the cook would come back and reverse the order of things. This kept up until we managed to get hold of an interpreter, who

soon cleared up the difficulty, and our meal was cooked in due course.

The country roads were in wretched condition, and although the next day's march was a short one it was slow and very tiresome. The roads were much congested with traffic, and owing to their narrowness and muddy state everything soon had a fine coat of mud camouflage. The farms were a distinct improvement over those of the day before, and cleanliness seemed to be a universal virtue and a most welcome one. The billeting party had a few wordy battles over the billets, but on the whole the people were very docile and always gave in at once if we adopted a firm attitude. It seemed rather a fear of the conduct of the individual soldier than a general objection to us on principle which caused any reluctance to admit that there was room for troops in the house. The conduct of the men was exemplary, however, and said much for the discipline of the corps.

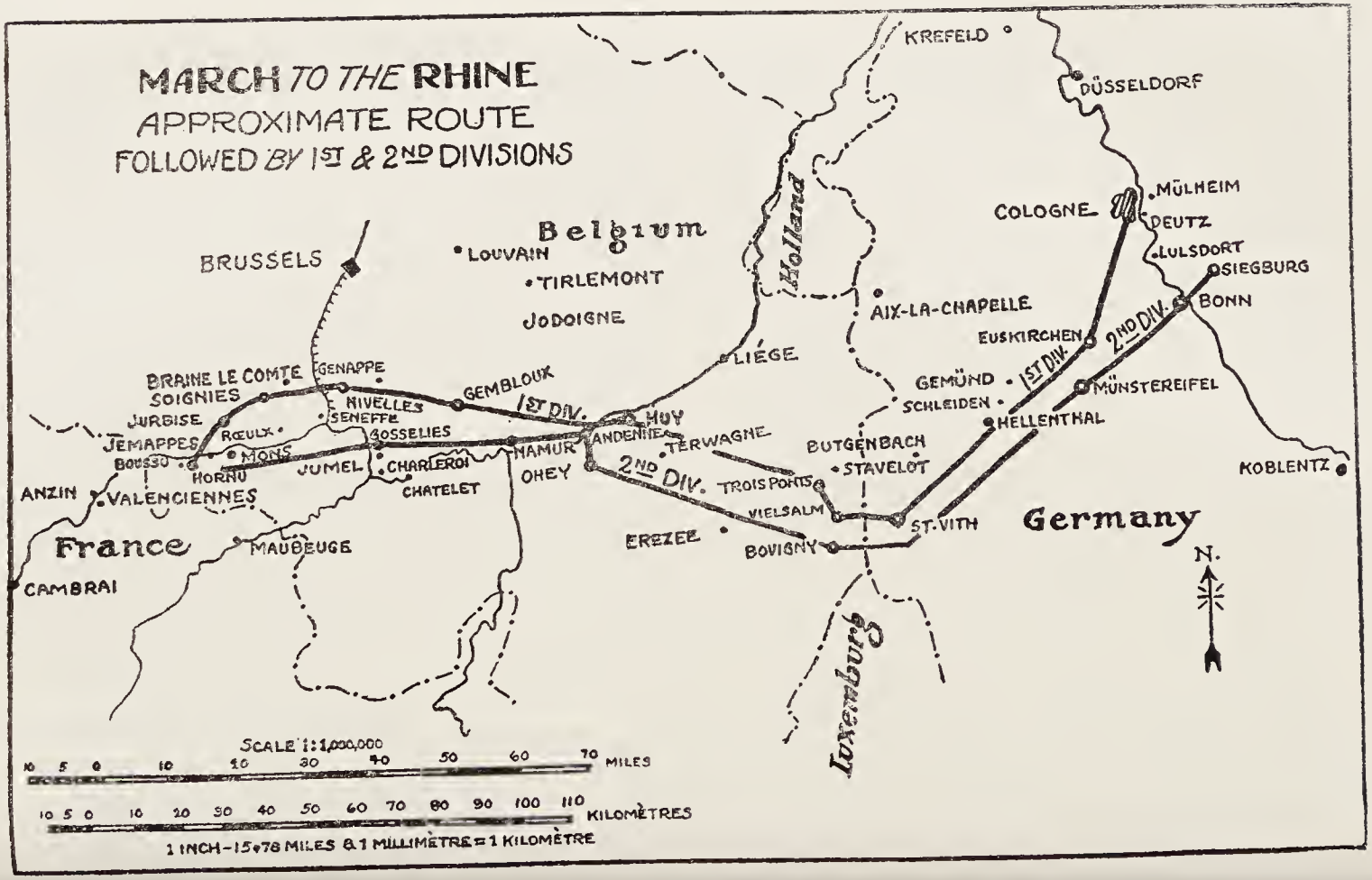
On the eighth of the month we moved from Kirkeld to Sistig. The roads were somewhat better, but the weather was vile, and the march long and uneventful. The next day we moved to Euskirchen and the next to Hausweiler.

As we began to approach the Rhine the country was more prosperous-looking. There were many fine houses in the small towns, and the miserable farms had disappeared entirely. The smaller ones looked neat and clean and comfortable, and there were many very large ones. The quantity of machinery about the large farms (as compared with France and Belgium) was particularly noticeable. Nearly all of them had small engines which furnished the house and outbuildings with electric light; many of them had telephones in the principal rooms in the house and in the stables and outbuildings; they nearly all had good plumbing and many of them had hot and cold water in all the bedrooms. The furniture was good and comfortable

and the odour to which we had become so accustomed in Belgium was conspicuous by its absence. The owners of these places were always very reasonable, but never had the affability of the poorer farmers. They would show us what part of the house was available for the use of the troops, and then immediately retire and afterwards would leave us to ourselves. This attitude was mutually satisfactory.

On the 11th of December we moved to Rodorf, and could see Cologne from our horse lines; in fact we were only about fifteen minutes' walk from the end of the tram line, and many drivers sneaked away after dark to visit the city. We were told that the 12th would be spent in a very necessary general cleaning, and that on Friday, December 13th, the Rhine would be crossed by the suspension bridge. The 12th was a day of hard work for everybody, and it rained abominably most of the time; but by evening things were in very good shape.

The 13th opened with cloudy weather, and before we were well started the rain came down in torrents. The leading troops were to cross the bridge at 9.30 a.m., the 2nd Division at Bonn, where General Currie was to take the salute, and the 1st Division at Cologne, where General Plumer, G.O.C. Second Army, would perform the same duty. We travelled through what seemed an interminable length of streets in Cologne, where there were crowds of people who looked at us with interest, but without the slightest sign of feeling. The shortage of food and the high cost of living were much more apparent here than in the country. Grocery and butchers' shops seemed very empty, but the confectionery places were fairly well stocked. The other places of business, such as tailors' and tobacconists, were well stocked, but what the mixture sold under the name of tobacco really was Heaven alone can tell. Chocolate was nowhere to be seen. After many checks and winding in and out narrow


MARCH TO THE RHINE
APPROXIMATE ROUTE
FOLLOWED BY 1ST & 2ND DIVISIONS
Belgium
Holland
Luxemburg
France
Germany
KREFELD
DÜSSELDORF
MÜLHEIM
COLOGNE
DEUTZ
LULSDORT
SIEGBURG
BONN
BRUSSELS
LOUVAIN
TIRLEMONT
JODOIGNE
AIX-LA-CHAPELLE
EUSKIRCHEN
2ND DIV.
1ST DIV.
LIÉGE
GEMÜND
SCHLEIDEN
MÜNSTEREIFEL
HELLENTHAL
BRAINE LE COMTE
SOIGNIES
GENAPPE
NIVELLES
GEMBLOUX
JURBISE
SENEFFE
HUY
ANDENNE
TERWAGNE
JEMAPPES
RŒULX
MONS
GOSSELIES
NAMUR
OHEY
BUTGENBACH
STAVELOT
BOUSSU
HORNU
JUMEL
CHARLEROI
CHATELET
TROIS PONTS
VIELSALM
ST. VITH
KOBLENTZ
ANZIN
VALENCIENNES
MAUBEUGE
EREZEE
BOVIGNY
CAMBRAI
N.
SCALE 1:1,000,000
MILES
KILOMÈTRES
1 INCH–15·78 MILES & 1 MILLIMÈTRE = 1 KILOMÈTRE

streets, we came to the bridge and at last crossed the German Rhine. In spite of the rain and the mud, all units looked extremely smart, and the march went off with a verve and snap which could not have been equalled by the Prussian Guards at their best. General Plumer stood on the sidewalk near the western edge of the bridge and took the salute of all units as they passed.

The first stage of our occupation of the bridge-head was at last over. We had been marching now for almost a month, and over some of the worst roads in Belgium, for the greater part of the time in appalling weather; but nevertheless sickness was practically unknown, horses and men were in the very best of health, and the *moral* of all ranks was as high as it had ever been. A few of the units proceeded at once to the edge of the bridge-head perimeter. The rest of us made a reconnaissance of the roads leading up to our position in case of further trouble, and we proceeded to settle down for the period during which we were to be on duty as a part of the Army of Occupation.

While we were still fighting in Belgium everyone looked forward to the time when we should " wind up the watch on the Rhine," and for the first few days dozens of men could be seen stopping on the bridge in Cologne and solemnly pulling out their watches and winding them up. Everyone was eager to get to Cologne, and the trams going in were jammed. The famous German manners were very much in evidence. A German man never offered a German woman his seat, no matter what her age; and in some cases when one of our men rose to give his seat to one of the so-called gentler sex (not gentler in Germany), a man would grab it before the woman could reach it. It is not necessary to say that he never remained there many seconds.

Very little need be said about the trouble which

arose shortly after our arrival and which caused Cologne to be put out of bounds to all Canadians. The views of the Canadians on this matter have already had more than enough airing in the newspapers, and the opinion of those in authority may best be judged from what actually occurred. As soon as the matter was referred to higher authority, the irritating restrictions were removed, which is in itself sufficient evidence of how groundless were the charges against us.

The billets into which we had first moved on crossing the Rhine were selected in a hurry and left much to be desired in regard to comfort and to cover for the horses; so the scramble for better quarters began at once. As everyone scoured the country, soon all units had good cover and excellent billets, and we began at once preparations for celebrating our last Christmas away from Canada.

The turkey supply collapsed at the last minute, the Y.M.C.A. being unable to get their supply up; but pork and goose proved excellent substitutes, and the lack of the traditional turkey did not interfere with anybody's enjoyment of the day.

The bartering for geese was an intricate job. The government regulations were apparently insurmountable, and to kill a goose was not to be thought of,— no offer of wealth in marks could shake this determination. However, chocolate and tobacco were unobtainable in the home of the Hun, and we had plenty of both these articles, which could be obtained in the Expeditionary Force canteens (which had followed us up at once). We had in vain offered two hundred marks for the poorest geese in the farm-yard; yet we traded two boxes of the poorest quality bar chocolate (value eight marks each) for the pick of the poultry yard. A carton of Player's cigarettes could procure a barrel of excellent beer at a place in Kalk, and the customary edibles so necessary to a good Christ-

Canadian Official Photograph

CANADIAN TROOPS CROSSING THE RHINE AT BONN

mas dinner could be obtained in almost unlimited quantities at the Y.M.C.A. and the canteens. Altogether Christmas was a big day and was celebrated in a big way; in fact, long after, when we were patiently waiting in Belgium for demobilization to start in our division, we heard constantly, " Remember last Christmas in Cologne when — " and the tale would start others and thus go on for hours.

The troops were paid regularly and extra Christmas money was given them while in Germany; so the shopkeepers of Cologne and Kalk, also of Bonn, reaped a rich harvest. Everyone bought souvenirs and pipes and everyone lost or broke both; and in the cafés of Cologne and Bonn gallons of Rhenish wine at exorbitant prices were consumed by the Army of Occupation. The " See Toos " of the 2nd Canadian Division opened up in Bonn and played to enormous houses. The opera at Cologne had a large number of the best seats reserved for the British forces; so we did not lack amusement and the time passed very quickly indeed. All saw as much of Cologne and Bonn as possible, and some of the more fortunate (especially the A.S.C. and staff officers, and people similarly situated with motor cars at their disposal) managed to have trips into the American area as well as seeing our own area thoroughly. Everyone did a good deal of visiting round the various units, a thing which up to now had been practically impossible, even during our long rest early in the summer of 1918.

A most remarkable thing in Cologne was the absolutely commercial way in which the Germans seemed to regard all their honours and awards, as well as buttons and souvenirs of all sorts. Iron crosses, of course, were sold, and proved so popular that enormous numbers were manufactured for the sole purpose of being sold as souvenirs. Rank badges, shoulder straps, buttons, and helmets could all be bought without difficulty. Even the higher orders

could be bought, the insignia of the Order of the Black Eagle (the miniature), the Order of the Crown, and various other Prussian, Bavarian, and Saxon orders were for sale. These, of course, were in very limited quantities, as it was only in tailor shops where the tailor had secured miniatures for some particular patron that they could be had; but when they were available the shopkeepers had no hesitation in selling them to their conquerors. It was not long before some of the more enterprising Germans had a stock of British buttons, cap badges, and collar badges for sale. The selling of the insignia of honours was only the outward manifestation of the whole attitude of the Germans in the Rhine provinces. Of course some of the old Prussians remained Prussian to the core, and our relations with them were civil and almost ceremoniously courteous, but never cordial. We did not admire the Prussian type; but we did admire the man of that type who stuck to his colours when all his neighbours were running after our favour in every conceivable way. The flags with which the Belgians decorated their towns were sold to them by the Germans; picture postcards of the German retreat were on sale; British, French, and American airs were played in cafés and restaurants. Nothing was left undone to try to win our good graces, and while we accepted all this the Germans need not have flattered themselves they were succeeding in ingratiating themselves with us, for our attitude changed from one of admiration for a foe who had fought gallantly, although unscrupulously, to one of contempt for a nation which could so lightly throw away its national pride. The British have been called a nation of shopkeepers; but I do not think prostitution of the honours which the state confers on its servants could ever take place in a British country. We have many faults, but I think our national pride, though not as bombastic as the Germans', would sufficiently survive

Canadian Official Photograph

THE RELIEF OF NAMUR

defeat in the field to prevent us from trying to turn our honour to profit.

About the 10th or 11th of January the advance party of the people who were to relieve us arrived on the scene, full of enthusiasm and ferocity. It was a remarkable thing how fierce everybody became on entering Germany, and when the ferocity came against the mild and docile Hun it died away into a sort of exasperated bewilderment. Everyone wanted to be fierce; years before we had said " we'd show them," we would be the haughty conqueror and Germany would rue the day she ever set foot on Belgian soil; but it is very difficult to keep it up when the other fellow does not seem to resent and merely glances in mild surprise at the conqueror. We are not by nature a vindictive nation, and when the other fellow seems to crawl we feel sorry for him and our much-talked-of vengeance melts into nothing. There is no fun in the fight when the other fellow won't hit back; you might just as well hammer a bag of wind; and that is very much how the Germans made us feel in Cologne.

It was amusing to watch how quickly the fiery ardour of our relief's advance party was cooled off. They took over the billets and made all arrangements for their incoming units, and we prepared to depart. We were to entrain and go by rail to Huy on the Meuse, about half-way between Liège and Namur, and billet in that area; the 2nd Division were to billet in the vicinity of Namur at a later date. The entraining facilities were good and so the entrainment did not take long; and for the most part things went smoothly and all units got away on time. The men travelled in the inevitable side-door Pullman so popular with horses and men; and as a rule the officers were provided with a windowless second-class coach. We (the 1st Division) moved on three days, the 14th, 15th, and 16th of January. The winters in Germany are not as cold as the winters in Eastern Canada, but they are

quite cold enough, and far too cold for a night journey in an unheated coach without any glass in the windows. It was a miserable trip, but beyond the discomfort no one had any ill effects, our worthy brigade commander's statement that he had lived all through the war only to die of pneumonia caught in a German railway train proving to be an exaggeration. All he got was a very bad cold.

The stage of active operations was now actually over and the return to Belgium seemed to mark a definite step toward demobilization. However, there was still a lot of life in the old division, and in order to further cement the *entente cordiale* with Belgium we were to march through Liège with all the pomp and circumstance we could. Each unit was to be represented, but the full division was not to go. Staffs were of course to have a very high representation. Instructions were issued in plenty of time to have things thoroughly cleaned and polished; mounted units were to march to Liège, dismounted units to go by train. We were to billet in Liège for three nights, and a great deal of trouble was taken to provide amusement for the troops taking part in the parade; so the trip was not looked on in any way as a fatigue.

The 4th of February was a bleak, cold, cheerless day, but fortunately it did not rain. The march began at ten o'clock in the morning and lasted about two hours through the principal streets of Liège. The whole route was lined with Belgian soldiers, and General Jacques, of the Belgian army, took the salute.

The general turn-out passed even our most sanguine expectations; every unit looked magnificent and the marching was perfect. An Imperial regular officer (and Imperials are not as a rule prejudiced in favour of Canadian "temporary soldiers") said that in all his years of service, about fifteen of them, he had never seen anything so well done as the march of the 1st Division. The Liégeois seemed very pleased and

cheered lustily all along the route. The Highlanders impressed them particularly, although very few of them expressed very much love for the music of the bagpipe. As soon as the march was over each one busied himself with the job of having as good a time as possible, and the people of Liège did their best to see that we did enjoy ourselves. The cafés and restaurants were, of course, jammed. I do not know whether the prices went soaring on our account or whether they were the ordinary war prices, but a sugary sort of mixture, called a cocktail, that tasted like varnish, sold at five francs a small glass. Other things were in proportion; you paid a price for soup that would, in normal times, be enough to buy you an excellent meal. As far as food was concerned, the people of Liège were much worse off than the Germans.

After the Liège trip we began to prepare to get rid of our horses and equipment, and to fill in the innumerable returns which were required for demobilization, among other forms a thing called a "*questionnaire*" about our future occupations and previous occupation in civil life. These things took hours to fill out, and just as all was entered a man would alter his mind and want about half the answer changed. Outside of keeping people busy sorting them, the man has yet to be found who ever saw any use made of these things. The "nominal roll by trades" was likewise a useless amusement, generously given the orderly room by a fatherly headquarters; and as we did not come home by industrial groups or ages, or married or unmarried, or date of enlistment, none of us saw much use in these returns. However, all this information was collected many times in many forms.

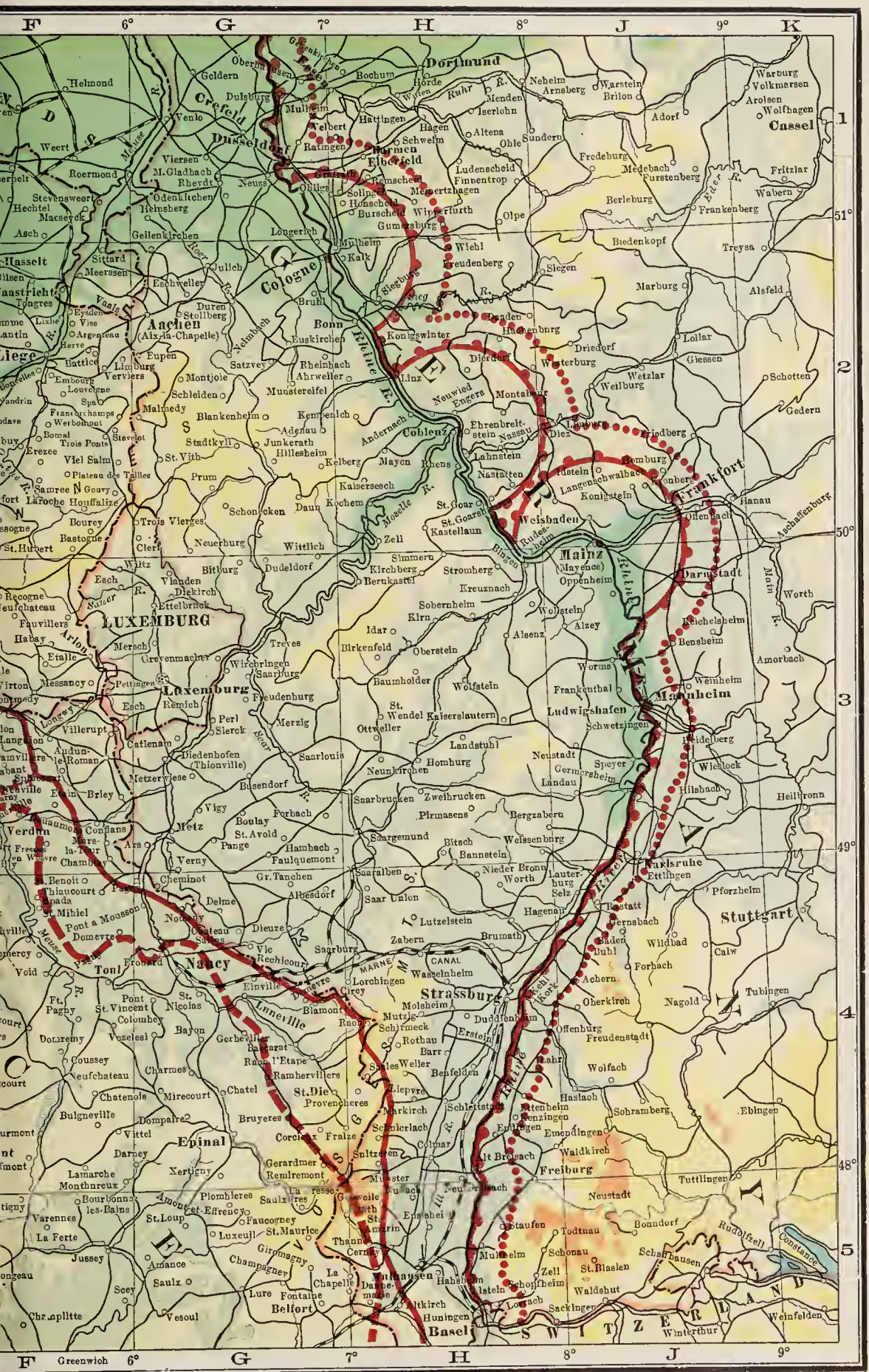
One of the most amusing and at times the most trying incidents of the demobilization period in Belgium was the getting rid of horses and equipment.

About the 10th of February we began to hand in guns, wagons, and harness, the turning over of which took about a week, and was quite uneventful.

Our horses had been sold to the Belgian Government, and we had undertaken to deliver them at their destination. To understand the job of shipping horses, it is necessary to know something about the means of travel for man and beast in Belgium. Where it is necessary to transport the horses by rail, they travel in ordinary freight trucks, eight horses to a truck, and placed four horses at each end, with their heads facing the centre, thus leaving an aisle between the two rows of four horses, in which the men looking after them have quarters among the forage and harness. The animals are loaded into their Pullman cars by a *pont roulant* or a movable ramp, constructed like a see-saw on a boat with the axle in the middle. It is generally so constructed that it does not fit any door properly, and to keep it from rolling away has to be braced and propped with stones and logs of wood. Getting horses up a thing like that and through the side door of a small Belgian freight car is not the easiest thing in the world, and is generally the cause of much ribald mirth on the part of the spectators not directly interested.

As soon as all the equipment had been turned in to ordnance, the animals began to disappear in lots. Some of the trips were not interesting, as the whole journey would be made by road, and the destination would be a small town or village; but in the cases where the animals were to be delivered to Antwerp or west of Brussels, the trips were eagerly sought after, as the return journey almost invariably meant a night in Brussels and probably one in Antwerp or Namur as well. As demobilization was expected to start almost any day, there was no trouble with absentees, a circumstance which was a great relief to both officers and N.C.O.'s, as most remount trips before the Armis-

A
1°
B
2°
C
3°
D
4°
E
NORTH SEA
Mouth of the Thames R.
ENGLAND
Margate
Ramsgate
Chatham
Maidstone
Canterbury
Deal
Ashford
Dover
Strait of Dover
Calais
Hastings
Boulogne
Ambleteuse
Wissant
Gravelines
Dunkirk
Ostend
Middelkerke
Nieuport
Zeebrugge
Blankenberghe
Knocke
Bruges
Middelburg
Flushing
Goes
Tolen
Rozendaal
Oosterschelde
Hondsbe
Sluis
Ter Neuzen
Lillo
Turnho
ANTWERP
Lierre
Herenth
Duffel
Mechlin
Eecloo
St. Nicolas
Lokeren
Ghent
Terdonda
Wetteren
Alost
Denderleeuw
Audenarde
Grammont
BRUSSELS
Louv
Wavre
Jodoigne
Ramillies
Egherzee
Genappe
Ivelles
Quatre-Bras
Namur
Fosses
Charleroi
Thuin
Somzee
Gerard
Florennes
Philippeville
Bance
Rocroy
Givet
Fumay
Revin
Signy l'Abbaye
Flize
Omont
Rau
Tourteron
Vouziers
Grandpre
Varennes
Apremont
Monthois
Bethelville
Rethel
Sissonne
Laon
Neufchatel
Asfeld
Juniville
Aisne R.
Braisne
Soissons
Fismes
Ville en Tardenois
Dormans
Epernay
Chalons
Vertus
Marson
Sivry
Vatry
Sezanne
Vitry
Compuis
Mailly
St. Remy
Ramerupt
Chavanges
Arcis sur Aube
Brienne le Chateau
Pincy
Soulaines
Troyes
Bar-sur-Aube
Vendeuvre
Estissac
Aix-en-Othe
Cerisiers
Chaource
Bar-sur-Seine
Essoyes
Les Riceys
Mussy
Chatillon sur Seine
Cruzy
Tonnerre
Ancy le Franc
Montbard
Algrande
Auxerre
Ailant
Charny
Montargis
Courtenay
Ferrieres
Cheroy
Sens
Pont-sur-Yonne
Nemours
Fontainebleau
Bray sur Seine
Marcilly
Nogent sur Seine
Mery
Provins
Donnemarie
Romilly
Melun
Corbeil
Villiers St. Georges
Villenauxe
Anglure
Esternay
Champenoise
Fere
Coulommiers
Tournan
Lagny
Montmirail
Montmort
Nogent
Avize
Epernay
Conde
Chateau Thierry
Lizy
Nanteuil
Betz
Oulchy
Creil
Senlis
Crepy
Pierrefonds
Villers-Cotterets
Neuilly en Thelle
Chaumont
Clermont
Compiegne
Beauvais
Tracy
Attichy
Vic
Couey
Pinon
Vailly
Soupir
Berry-au-Bac
Craonne
Corbeny
Laon
Sissonne
Rethel
Chateau Porcien



LIMIT OF ALLIED OCCUPATION

LIMIT OF NEUTRAL ZONE

tice were not by any means a joy, absentees, stray animals, lost bits, etc., causing untold worry to everybody concerned. The horses were being fed well with just enough exercise to keep them fit; so there were some very amusing scenes when the journey had to be made by rail and the loading process became necessary. The preliminary stages were quite simple; all the quiet animals were led peacefully into their box cars and tied up, and then the crowd would collect to persuade the more reluctant members of the party to get on board and let us start. The spectators gathered in spite of all efforts to drive them away, and gave advice freely and in detail whether it was sought or not, and added to the general chorus of curses and exhortation that pursued the reluctant traveller up the ramp to his sleeping-car.

Mules were in a way easier to handle. A mule, as a rule, will not resist actively. He goes half-way up the ramp, and whips, exhortations, tears, and curses alike all fail to move him one hair's breadth up or down. However, one day when we were battling long and hard, and a jenny mule was being called names that should never be used to a lady, the whipping squad was exhausted and even the advisory board was becoming silent, when a Belgian solved the mule problem forever. He sneaked up behind our mule, and with a pair of tongs placed a live coal gently but firmly at the base of the mule's tail. Had the door not been closed at the other side of the box car, that mule would have been out the other side and going yet.

As soon as the horses had all gone we were ready for demobilization; and on the day that the last horse left, the first men to go started for Huy station, and the final breaking up of the division had begun.

It must be remembered that this period is the time after the Armistice, and the men taking part in the march and in the subsequent occupation of Germany and wait in Belgium were not (except in very rare

cases) regular soldiers. They had finished the job for which they enlisted, and I do not think the people of Canada realize what a magnificent tribute to the discipline and *esprit de corps* of the Canadian Corps in France is the absence of serious crime during this very tiresome period. The unfortunate incidents which occurred in England were not traced to the fighting troops of Canada. It is not less than a crime that the reputation of the corps, built up with so much hard work, suffering and sacrifice, should be marred by those who, although they came from Canada, were never part of the corps. Canadian fighting troops remained good soldiers until they ceased to be soldiers at all; and in placing the blame for the disgraceful conduct of some Canadians in England, we should always remember that those who attempted to give Canada a bad name were never those who helped to give the country a good name.

We left Belgium for France as we had left Germany, without regrets, and we left France without regrets; but I do not think that any one who ever belonged to the Canadian Corps will ever forget it, or ever regret the time spent with it. As one signaller said when he gave his horse a parting shove into the train, "Good-bye, old man. It was hell while it lasted, but we wouldn't have missed it for a million dollars."

APPENDICES

APPENDIX I

THE WAR IN THE AIR

1. Getting the Men

THE forethought of governments seldom rises above that of the people they govern. In 1914 the possibilities of flying machines in war were undreamed of save by a few enthusiasts, who had not gained the ear of either governments or people. Some progress had, indeed, been made in Germany and France, but Great Britain entered the war with not more than fifty machines in the field, two-thirds of which were destroyed by the collapse of a hangar at St. Omer before the end of the year; and even as late as 1917 the United States had so far failed to learn one of the most vital lessons of the war that they went into the conflict with the mere nucleus of an air service. It is not altogether surprising, therefore, that the Government and the military authorities of Canada treated as rather fantastic dreamers those who would have added an air arm to the first contingent of the Canadian Expeditionary Force.

In fact, despite the enterprise and resourcefulness they showed in developing other branches of Canada's war effort, the military authorities were very slow to recognize the importance — one might almost say, the supreme importance — of an efficient air service. Indeed, it is hardly too much to say that official Canada never did quite reconcile itself to the thought that aircraft had become an essential factor in modern warfare. Canada's share in the war in the air was very considerable, — perhaps greater relatively than

that of any other member of the Allied forces, — but her success was due infinitely more to the enthusiasm of individual Canadians and their remarkable aptitude for air fighting than to the initiative of her Government; and the splendid organization developed in Canada, in the latter years of the war, for the equipment and training of Canadian airmen, was, it must be remembered, initiated, carried through, and financed almost entirely by the Imperial Government.

Early in 1915 the War Office and the Admiralty authorized the enrolment of probationary officers in Canada for the Royal Flying Corps and the Royal Naval Air Service respectively. The value of aircraft in reconnaissance — fighting came later — and the serious handicap imposed upon the British Army by its weakness in this arm had very soon been realized, and effective steps were being taken to remedy the defect. Machines were being turned out in rapidly increasing numbers, and with them came the demand for trained pilots, both for the R.F.C. and the R.N.A.S.

The pioneer Canadian aviator, J. A. D. McCurdy, with the assistance of Glenn Curtiss, had succeeded in establishing a flying school in Toronto, as a private undertaking. Enthusiastic young Canadians flocked to it, in spite of the heavy expense, and the students enrolled quickly ran up to a hundred or more. Meanwhile the late Lieut.-Colonel William Hamilton Merritt had toured the country, urging the establishment of a series of schools of aviation throughout Canada. He could get no official sanction from the Canadian Government, but appealed to the generosity and patriotism of Canadians to raise a Dominion fund of $200,000. Local support was obtained in Winnipeg and Vancouver, but in the end the project of independent flying schools fell through. Nevertheless the campaign served a useful purpose in arousing public interest in a subject which, at any rate in its applica-

tion to war, was entirely new. To facilitate the work of recruiting, the British Government sent a representative out to Canada, and before the end of the year several hundred Canadians had been secured, some trained at Toronto, others at Ithaca, New York, and many more at the various English schools. As soon as they had completed their training, these men were attached to one or other of the British air squadrons at the front, or to the Royal Naval Air Service, and almost immediately demonstrated the peculiar adaptability of Canadians to war work in the air. It may be noted that, in addition to those directly enlisted, hundreds of Canadians transferred overseas from the Canadian Expeditionary Force to the Imperial Flying Service.

In 1916 the Royal Air Force established its own organized recruiting service in Canada, with the assistance of the Canadian Government, and from that time onward the number of Canadians in the Imperial Air Service rapidly increased. The Dominion authorities were still curiously blind to the importance of this branch of war effort, but were quite willing to facilitate the efforts of the Imperial Government to secure recruits in Canada. Throughout the greater part of this year the British aerial force at the front had been steadily increasing in numbers and efficiency, and, particularly in artillery observation, was as steadily establishing its superiority over the enemy's air service. In September, however, with the introduction of two new types of fighting machines, remarkably fast and effective, and a flood of carefully trained pilots, the Germans threatened, for a time at least, to recover the command of the air. The situation was serious. Machines that would be more than a match for the new German models would soon be available from the British factories, but these were useless without trained pilots, and trained pilots could not be turned out as fast as machines. Where pilots were at first

counted in scores, and then in hundreds, they were now demanded, and most urgently demanded, in thousands. The British schools were working at highest pressure, and still the demand far exceeded the supply. The Imperial Government determined to extend its organization to Canada, and utilize to the fullest extent the energy and resourcefulness of the young manhood of the Dominion.

Having so decided, with British thoroughness they set about making the Canadian branch of the service as nearly self-contained as possible. The Royal Flying Corps, Canada, although an Imperial organization financed with Imperial funds, was in other respects to be almost wholly Canadian. A small initial personnel was sent out from England, with such equipment as was absolutely necessary and could not be obtained locally, and instructed to go ahead and do its own expanding. It was to arrange its own recruiting programme in Canada, build up its own training staff, and train all grades, officers, non-commissioned officers, and men. Canadian Aeroplanes, Limited, was organized to turn out machines for the transatlantic wing, and an Aviation Section of the Imperial Munitions Board in Canada was formed to look after the innumerable physical requirements of the corps, from the selection of aerodrome sites to the provision of boots and socks. Canada was looked to to furnish not only the raw material for training, but also most of the technical and business brains and experience needed to direct the operations of what was very soon to grow into a huge and many-sided machine. That she responded effectively to every demand will be shown later.

The initial steps in this momentous project were taken in December, 1916, and by the spring of the following year the Canadian branch of the Royal Flying Corps was well established. The first Canadian aerodrome at Camp Borden, with fifteen flight sheds and all other

necessary buildings, was well advanced; provision for the training of various squadrons of the corps was being made at Long Branch, nine miles west of Toronto, at Leaside, and at Armour Heights, a few miles north of the same city, and at Rathbun and Mohawk, near Deseronto; and a large factory was under construction for Canadian Aeroplanes, Limited. Meanwhile recruiting had been going forward briskly, although at first under rather difficult conditions, as the country had already been pretty thoroughly combed for the C.E.F., and, so far at least as mechanics were concerned, the R.F.A. had to compete with munition and other factories paying high rates of wages. Nevertheless the ever-increasing interest of adventurous Canadians in this arm of the war machine, with its peculiarly strong appeal to young men of courage, resourcefulness, and initiative, brought a gratifying response to the appeal.

Toward the autumn of 1917 the demand for airmen rose with such bewildering rapidity that the recruiting branch found it necessary to bend all its energies to the task. Recruiting offices had already been opened in some of the larger cities, and a publicity plan worked out through the newspapers and by means of posters, supplemented by addresses and recruiting meetings. The results of these measures were for a time satisfactory, but it was presently found that the demand was rapidly outstripping the supply. By a process of exclusion and concentration the publicity campaign was brought to a high state of efficiency, and at the same time a scheme of civilian committees was developed, designed to cover every important community throughout the Dominion. Altogether some three hundred and fifty committees were established, with a total membership of over one thousand, and as a result of their enthusiastic work the stream of recruits kept pace with the demand from overseas.

It must not be forgotten, too, that in addition to the demand for cadets and mechanics, for overseas service, the rapidly expanding organization of the Air Service in Canada had to be taken care of. Skilled and unskilled labour was needed in every department, and must be recruited in a field already subjected to many and varied calls. Early in 1918 a number of Category A men — that is, men fit for active service at the front — had to be liberated from the different staffs of the Air Service in Canada, for service with the C.E.F. in France. Only one available source of supply remained to fill the gaps, and the women of Canada were called upon to help here as they had already done in so many other directions. At first employed only in unskilled trades and office routine, their capacity for other duties was quickly demonstrated, and at the time of the signing of the Armistice nearly twelve hundred were employed in a great variety of work, from the Headquarters office to the repair parks, as stenographers, bookkeepers, mechanics, technical assistants, motor drivers, and in many other ways.

Something must be said later as to the invaluable work of the Aviation Department of the Imperial Munitions Board, and of Canadian Aeroplanes, Limited, but first it will be convenient to sketch briefly the development of training in Canada, to describe how the raw recruit was turned into a trained airman, ready to receive the finishing touches in the English camps before joining one of the squadrons at the front.

The cadet, as soon as he had been accepted, was sent to the Recruits Depot, where he got such infantry training as was necessary, and a certain amount of instruction in telegraphy, with lectures in the elementary principles of flying. From there he went to the Cadet Wing, continued his work in wireless, and dug into the many-sided question of aerial navigation,

compass work, map reading, map making, etc. Having now got his groundwork, the cadet was sent on to the School of Aeronautics. Here the theoretical knowledge he had already picked up was expanded and applied. He took up artillery work and bombing, zone call systems and aerial photography, and studied the theory and principle of aeroplane construction, and the design and operation of engines. He had to learn how to diagnose engine troubles, and how to assemble and dismantle an aeroplane. At the same time he had lectures in the organization of his own and other arms of the service, and in military law and discipline, etc. His next step forward took him to the Armament School, where he became thoroughly grounded in the types of machine guns used in the Air Service, studied the intricate questions of sighting, synchronizing gun with propeller, and gun troubles, as well as the dropping and aiming of different types of bombs.

The cadet was now ready to be posted to one of the wings. Here he at last learned to fly, by progressive steps, until the handling of his machine became automatic and he could apply his brain to other subjects. Under conditions approximating as nearly as possible to those at the front, he learned to fly in formation, to carry on aerial photography and reconnaissance, to read ground strips and lamp signals, and to drop bombs. At Leaside, the cadet got further instruction in artillery co-operation, noted from the air the bursts of supposed batteries, located them on his map, and reported their position by wireless to the receiving battery station, correcting and directing its fire. He had to describe the effect of barrage fire, the movement of troops, and other similar details. Finally, at the School of Aerial Fighting, after a finishing course of ground gunnery with Vickers and Lewis guns, he took to the air and shot at silhouette targets anchored in Lake Ontario, fought other pilots in the air by means

of a camera gun loaded with film which recorded the accuracy of his aim, and perfected himself in aerial tactics. The cadet was now a qualified pilot. The Royal Air Force, Canada, had done all that it could for him, and he was ready for a final brush up in the English camps, to get the last word in air fighting, before proceeding to the front.

Obviously all these courses of instruction were not developed in a day. In fact, at the outset the work had necessarily to be confined to the bare essentials and crowded into a single course. Gradually, as the number of cadets increased, and qualified instructors multiplied, one special course after another was built up, and established in its own quarters. It should be noted, too, that concurrently with the training of pilots as already described, classes of observers were being trained in their own particular branch of the work in the air. One may also mention here the School of Special Flying at Armour Heights, established in April, 1918, where a special course was provided for instructors, to perfect them in the more difficult evolutions, looping, rolling, and the like.

A few words must be said as to the work of the Royal Flying Corps in Texas. The problem of training throughout the long winter months in Canada had been the subject of much anxious thought, and it had at first been the intention to prepare aerodromes in British Columbia. With the entry of the United States into the war, however, a simple solution was provided. That country was more than willing to co-operate, and a scheme was worked out by which American and Canadian cadets would be trained together, throughout the summer months in Canada, and through the winter months in Texas, the cost being shared between the Royal Flying Corps and the Aviation Section of the United States Signal Corps. The arrangement worked admirably. Early in July, 1917, about fourteen hundred enlisted men and cadets from

the Signal Corps arrived in Canada. Late in September these men, with a large number of Canadians, were carried down to Fort Worth, Texas, where aerodromes and barracks were being hastily constructed. In spite of innumerable difficulties, due largely to the inevitable dual system of control, the American and British officers worked loyally together, and between November and April turned out nearly two thousand trained and partially trained pilots, as well as over four thousand trained men, with very few casualties.

It was subsequently found that winter training in Eastern Canada was quite practicable. Nevertheless, the experience in Texas was worth while from more than one point of view, not the least important being the strengthening of the bonds of comradeship between Americans and Canadians, now fighting shoulder to shoulder in the same great cause. In a letter dated May 17th, 1918, Major-General Kenly, Chief of the United States Air Service, wrote the General Officer Commanding the Royal Air Force, Canada: "By its faithful and efficient work in the training of our cadets and enlisted personnel, the Royal Air Force has conferred a great and practical benefit on the United States Air Service. Equally important is the imponderable but undoubted benefit which has accrued to our men from instruction by and association with officers and men who have had practical experience at the front, with the conditions which we are preparing to meet. This contact, so desired by all our forces, and so particularly influential in the training of a wholly new arm of the service, would, but for your assistance, have been denied to all the men training for the Air Service in this country."

Even this brief sketch of the work of the Air Force in Canada would be incomplete without some word of explanation and commendation of the two agencies that shouldered the burden, the many-sided burden, of

financing and equipping the service. The Aviation Department of the Imperial Munitions Board, organized in 1917, was subdivided into several sections, Executive, Purchasing, Construction, Transport, and Aeronautical Supply, all under the Director of Aviation. From top to bottom the department was manned by Canadians, experts drawn from many branches of business, men of experience and trained judgment, and thoroughly alive.

It is difficult to give even an idea of the manifold activities of this indispensable adjunct of the Air Force. From comparatively simple beginnings, it grew rapidly and in innumerable directions, building up branches and sub-branches and again sub-divisions of these, to meet the varied and insistent demands of the Air Service. The Purchasing Section looked after their physical needs of every description, except food and medical stores. This meant the handling of no less than ten thousand different articles, large and small, from aeroplanes to shoe-laces, and in quantities sufficient to meet the ever-expanding needs of the service. The Construction Section dealt with all questions relating to the housing of the brigade. The sum of its achievement included such items as 400 buildings using eighteen million feet of lumber, 6 central steam-heating plants, 26 individual heating plants, 300 miles of telephone and power lines, 6½ miles of railways, 22½ miles of roadways, 18 miles of water mains, 10 miles of sewers, 27 miles of aerodrome drainage, 5,000 plumbing fixtures, and the cleaning, rolling, and seeding of 4,000 acres of land for flying purposes. Incidentally it looked after a commissary business running to forty thousand meals a week. To the Transportation Section belonged all questions involving relations with the railways, including the movement of thousands of men and vast quantities of supplies to and from Texas. The Aeronautical Supply Section served as a connecting link between the

aeroplane factory and the aircraft equipment section of the brigade.

Canadian Aeroplanes, Limited, during the twenty-one months it was in operation, turned out some 2,900 aeroplanes, valued at nearly $14,000,000. These were principally for the Royal Flying Corps, but a considerable number of them were built for the United States Government. The great factory on Dufferin Street, Toronto, covering some six acres of ground, was completed in two and one-half months, a remarkable record in quick construction. An interesting fact in connection with the work of Canadian Aeroplanes, Limited, is that it found all its materials in Canada, from British Columbia spruce for wing beams to the remarkably strong cotton fabric, made in Three Rivers, which was used for covering the wings. The factory also built for the United States a fleet of thirty F5 flying boats. It may be noted that Canadian Aeroplanes, Limited, was manned by Canadians, from president to mechanic.[1]

One must not conclude this first stage of the story of the war in the air without a brief reference to the various voluntary associations in Canada which did so much to make a success of the Canadian section of the Air Service. First of these is the Aero Club of Canada, which grew out of the visit to Canada in 1915 of the late Colonel C. J. Burke, D.S.O., R.F.C. The moving spirit in the organization of the club and the development of its activities was the late Lieut.-Colonel William Hamilton Merritt, whose death in November, 1918, was a serious loss to the club and to his country. The club was incorporated in December, 1916, and the energies of its members were at once thrown into the all-important matter of recruiting for the Flying Services. In fact, until the Royal Flying

[1] For much of the information in the foregoing pages, the writer wishes to acknowledge his indebtedness to Alan Sullivan's *Aviation in Canada.*

Corps took over the work in October of the following year, practically the entire burden of recruiting was borne by the club. It had also been authorized to issue international aeronautical certificates to pilots who had qualified in training.

In June, 1918, it inaugurated the first Canadian aerial mail, between Toronto and Montreal; a second mail, between Toronto and Ottawa, was carried in August, and another in September. The club, with the permission of the Canadian Government, designed and used a special stamp, showing in the centre an aeroplane bringing down a Zeppelin in flames, with this inscription around the border: "The Aero Club of Canada's First Aerial Mail Service — per Royal Air Force. August, 1918." For the purpose of the aerial mail the value of the stamp was twenty-five cents. It is now one of the rarities of the stamp collector. The Aero Club is affiliated with the Royal Aero Club of London. Its membership includes several thousand members of the Royal Flying Corps. In addition to its notable work in aid of recruiting, the club secured the gift of a number of aeroplanes, some for training purposes in Canada, others for active service overseas. These were presented by Colonel Merritt, Mr. James Carruthers of Montreal, the Province of Ontario, and the City of Toronto.

Other organizations that contributed in various ways to the success of the movement to recruit, train, and send overseas the maximum number of young Canadians to join the Air Services, were the Canadian Division of the Aerial League of the British Empire, organized in Montreal by Sir H. S. Holt, W. M. Birks, G. G. Foster, and other patriotic Canadians; the Canadian Aviation Aid Society, which equipped and maintained the Longwood Convalescent Home, and through branch organizations in most of the cities and towns of the Dominion secured donations in money and comforts, some thousands of dollars being

forwarded to the Air Committee in London for hospitals and comfort funds; the Aero Club of British Columbia, organized through the efforts of Colonel Merritt, and with similar objects to those of the parent body; and the Young Men's Christian Association, which established and maintained club rooms at the various training camps of the Royal Air Force in Canada.

2. At the Front

So far we have attempted to follow the Canadian airman from the time that he was accepted for service to the day that he sailed from Canada, eager to get into the great game. Now we shall go on with him to the front. In England, at one of the training camps, he was put through his paces, tested for any possible flaws in his training, and given a final course embodying the results of the most recent experience at the front. He was now a full-fledged airman, pilot or observer, sporting on his breast in the former case a pair of wings and in the latter a single wing, and having, after a weary period of waiting, his orders to report to one of the squadrons. Generally speaking, he would be sent to France or Belgium, but the exigencies of the war might take him to one of the more remote fields of operations. Canadians served on all the fronts, in Italy, in Macedonia, in Egypt and Palestine, in Mesopotamia, in East Africa, but most of them found their way to the western front.

Unlike their fellow-countrymen in other arms of the service, Canadian airmen were not members of the Canadian Expeditionary Force. They belonged to the Royal Air Force, and that was essentially an Imperial organization. It is true that a Canadian Air Force was subsequently authorized, but the organization had not been completed at the time of the signing of the Armistice, and the two Canadian air squadrons

never actually saw service in France. Further particulars of this rather belated effort to put Canada officially on the air map will be given later. It must be said, however, that from the point of view of the majority of Canadian flying officers the creation of a distinct Canadian Air Force had little to recommend it, beyond its usefulness as a nucleus upon which to build an organization in Canada after the war. Canadian flying officers, for the most part, preferred to serve with their British comrades in the powerful and splendidly organized Royal Air Force rather than join a necessarily small Canadian unit. In the larger force they were well treated, got on excellently with their fellow-officers, and had unlimited opportunities for the exercise of their courage, initiative, and resourcefulness. The R.A.F. had been brought to a remarkable degree of perfection as a fighting machine, to quite a considerable extent through their individual efforts, and they were jealous of any move that might have a tendency to impair its efficiency.

It may be convenient at this point, as we are following the fortunes of Canadian airmen in the Royal Air Force, to describe very briefly the organization of the service at the front. The control went back, as in other arms, to a General Headquarters. Under this, on the fighting side, were Brigade Headquarters, then Wing Headquarters, then Squadrons, and finally Flights. A wing was commanded by a lieutenant-colonel, a squadron by a major, and a flight by a captain. There were from twelve to eighteen machines in a squadron, and from four to six in a flight. On the supply side of the service, there were two air depots, under G.H.Q., and below these wing depots supplying the squadrons.

Something may also be said as to the routine of the day's work in the Air Service. It varied, of course, at different times and in different places, but was more or less along these lines: The wing commander would

Canadian Official Photograph

CANADIAN OFFICERS OF A ROYAL AIR FORCE SQUADRON IN FRANCE

send the orders for the following day to the squadron commander, who would go over them in the evening with his three flight commanders. The latter would report the machines available for the next day's show, and it would be arranged who was to go up, and on what duties.

These duties were varied, some more or less routine in character, others demanding a great deal of individual initiative and correspondingly more dangerous. In the former class were line patrols. The flying man here became practically an air sentry. His duty was to take his machine up to the ten-thousand-foot level and patrol a definite section of the front line, back and forth between two points. He guarded the line and all that lay behind it from the inquisitive eyes of enemy aircraft. He remained on duty for a couple of hours, or until relieved.

Offensive patrols also covered the line, but in a different fashion. Instead of flying up and down a comparatively short section of the front, the patrol took a zigzag course across the trenches, reaching well into enemy territory. This work was sometimes carried out in formation of three or four machines, but generally solo. As the name implies, the duty was more aggressive than in the case of the line patrols. It involved fighting as well as purely defensive measures. The fighting side was still more emphasized in the case of the wandering patrols, which frankly went out to hunt the Hun.

Reconnaissance and photo-reconnaissance presented quite different problems. This duty, carried out generally by four or five machines in formation, was extremely important. It involved the gathering of information upon which the plans of Headquarters must be based. The leader of a photo-reconnaissance party was generally given instructions to get photographs of certain definite objects, parts of the enemy's trenches, or his lines of communication, the changing

disposition of his troops, or the position of hidden batteries. It is said that approximately two-thirds of the planes at the front were engaged in reconnaissance work.

It may be noted here that the fighting planes, such as those engaged on offensive patrols, had to be much faster machines than those engaged in reconnaissance. The latter, in which stability was of more importance than speed, could fly only about eighty miles an hour, while the former ran up to one hundred and forty or one hundred and fifty miles. The fighting plane must also be able to climb very fast. The Sopwith-Camel, for instance, climbs twelve thousand feet in ten minutes. Speed is equally essential to overcome the enemy, or to escape from him if he appears in overwhelming force.

Another very important part of the work of the Flying Corps was that of the bombing planes. The enemy sent out bombing squadrons to raid unprotected cities, to murder women and children, and the wounded in hospitals. Our reprisals were restricted to military objects, munition factories and aerodromes, lines of communication and railway stations, ammunition dumps and batteries, troop trains and bridges, and the enemy's trenches.

Some of the most effective work of these planes was done not with bombs but with machine guns. Lord Montagu of Beaulieu, in one of his stirring speeches in Canada, gave the following dramatic picture of the work of a fighting plane at the front: "You fly over the German lines at a great height, and suddenly you turn the nose of your machine downwards and swoop down to attack a particular object, such as a train. You go up again. Then you dive right down along the German lines of communication, perhaps only a hundred feet from the ground. You see a battalion marching along the road, and you turn your machine gun on them. You fly a little further on

PILOTS OF A ROYAL AIR FORCE SQUADRON

A NIGHT'S RATIONS FOR A BOMBING SQUADRON

Canadian Official Photographs

with your machine gun, and perhaps you see a group of staff officers standing near some trees, and they run like anything when you approach. You note all the changes there. Then you see a train coming along the line and perhaps you drop a bomb in front of the locomotive. Finally — and this has happened a great number of times lately — you fly absolutely down and along the German lines and use your machine gun on the German trenches. Now, that sounds like an extraordinary risk, and it is extraordinary, but it is not half so risky as being a thousand feet above the trenches. You can easily understand why. Suppose you were standing in a narrow trench, only eighteen inches wide, and were six feet underground. An aeroplane flying over you at a speed of two miles a minute would look absolutely like a flash over the trenches. You could not get your rifle up to your shoulders quickly enough to fire at it. The plane is also safe against attacks from German anti-aircraft guns, because they might hit their own troops. Of course the danger comes when you fly away from the German trenches and when you have to go over your own lines; then you may have to rise high enough to get out of the way of your own shells. I will tell you this: our pilots now are so extraordinarily ingenious and so enterprising and so brave that they use their machine guns in connection with infantry work, in advances, with a hardihood and a bravery that are almost inconceivable. And there is no one who is better at that job than the Canadian pilot."

Of this tremendously daring and effective work of the airmen in co-operating with the infantry in advances, Lieut.-Colonel Bishop has given a graphic account in his *Winged Warfare,* in describing some incidents of the Battle of Arras. They had been detailed to fly low over the advancing infantry, firing their machine guns into the enemy trenches and dispersing their supports. He pictures their mad flight

through a cloud of shells, both British and German. "Over and over again one felt a sudden jerk under a wing-tip and the machine would heave quickly. This meant a shell had passed within a few feet of you." Several machines were hit by shells and brought down. The British barrage fire that morning was the most intense the war had ever known. "While the British fire was at its height the Germans set up a counter-barrage. This was not so intense, but every shell added to the shrieking chorus that filled the stormy air made the lot of the flying man just so much more difficult." It was all in the day's work, however, and Bishop and many other gallant Canadian flying men showed in the Battle of Arras, as on many other occasions, the qualities of courage, clear-headedness, and quick thinking that made them much more than a match for their German antagonists.

While it is impossible at present to say just how many Canadians were serving in the Royal Air Force, on each of the many fronts, it is officially stated that up to the end of December, 1918, some 8,240 Canadians had entered the Royal Air Force, or the twin forces which preceded it, the Royal Flying Corps and the Royal Naval Air Service. This total was made up as follows: 1,239 officers seconded or attached to the Royal Flying Corps, Royal Naval Air Service, and Royal Air Force, up to the close of 1918; 2,721 other ranks of the Overseas Military Forces of Canada transferred to the Air Services during the same period; and 4,280 cadets enlisted in Canada by the Imperial authorities and sent overseas. In addition to these, a number of Canadians were transferred from the Canadian Expeditionary Force to the Flying Services prior to June 1st, 1916, and subsequently received commissioned rank. Of these no exact record was kept. About one hundred and fifty civilians went to England at their own expense, early in the war, and enlisted there in the Royal Flying Corps or the Royal

Naval Air Service. Also a certain number who went over to join British regiments subsequently obtained transfer to the Air Forces. At the date of the Armistice a large number of cadets were training in Canada, who never got overseas. There were in addition a large number of other ranks employed in England, France, and Canada by the Royal Air Force. Altogether there have been in the Air Services probably 13,500 Canadians of all ranks. At the time of the signing of the Armistice nearly one-third of the fighting strength of the Air Force hailed from the Land of the Maple Leaf.

According to an official statement published by the Air Ministry, the British Air Forces before the war consisted of 272 machines, 197 officers, and 1,647 men, while in October, 1918, there were 22,171 machines, 27,906 officers, and 263,842 men. From July, 1916, to the date of the Armistice, the Air Force on the western front alone brought down 7,054 enemy aircraft, dropped 6,042 tons of bombs, and fired many millions of rounds of machine-gun ammunition.

It is difficult to give anything like an adequate picture of the achievements of Canadian flying men in the war. Such names as those of Bishop and Barker and Collishaw have become household words, not merely in Canada, but throughout the world. Their almost incredible exploits in the air have added lustre to the name of their native country. But the really notable circumstance is not that these men piled up such remarkable records of enemy machines destroyed and other material damage to the fighting strength of the Hun, but that they were merely outstanding peaks in a mountain range of splendid achievement. The fact is that the success of Canadian airmen in the war was so unquestionable, the failures so few, and the average so uniformly high that something unusually spectacular was needed to bring the names of any of them into the limelight. A slight incident may help to

give some idea of the value of the average Canadian airman. In the spring of 1919 an American in London gave a dinner at Prince's restaurant to twelve Canadian aviators who had fought in the war. None of these bore names that were then, or are now, particularly familiar to the general public in Canada or elsewhere. Bishop was not there, nor Collishaw, nor several others whose names have become famous. Yet these twelve young Canadians had an official record of 411 enemy machines destroyed in battle.

So much has been written about the air adventures of Canadian aces that it would be a work of supererogation to tell the stories over again here. It does seem fitting, however, that in what is designed to be a permanent and authoritative record of Canadian achievement during the war, one should incorporate the official accounts of why the Victoria Cross was given to three Canadian airmen.

William Avery Bishop was awarded the Victoria Cross for most conspicuous bravery, determination, and skill on August 10th, 1917. Having been sent out to work independently, he flew first of all to an enemy aerodrome; finding no machine about, he flew on to another aerodrome about three miles south-east, which was at least twelve miles the other side of the line. Seven machines, some with their engines running, were on the ground. He attacked these from about fifty feet, and a mechanic, who was starting one of the engines, was seen to fall. One of the machines got off the ground, but at a height of sixty feet Captain Bishop fired fifteen rounds into it at very close range, and it crashed to the ground. A second machine got off the ground, into which he fired thirty rounds at one hundred and fifty yards range, and it fell into a tree. Two more machines then rose from the aerodrome. One of these he engaged at the height of one thousand feet, emptying the rest of his drum of ammunition. This machine crashed three hundred yards from the

aerodrome, after which Captain Bishop emptied a whole drum into the fourth hostile machine, and then flew back to his station. Four hostile scouts were about one thousand feet above him for fully a mile of his return journey, but they would not attack. His machine was very badly shot about by machine-gun fire from the ground.

On the morning of October 27th, 1918, Major W. G. Barker observed an enemy two-seater, over the forest of Mormal. He attacked this machine and after a short burst brought it down. At the same time a Fokker biplane attacked him, and he was wounded in the right thigh, but managed, despite this, to shoot the enemy aeroplane down in flames. He then found himself in the middle of a large formation of Fokkers, who attacked him from all directions, and was again severely wounded in the left thigh, but succeeded in driving down two of the enemy in a spin. He lost consciousness after this and his machine fell out of control. On recovery he found himself being attacked by a large formation, and singling out one machine he deliberately charged and drove it down in flames. During this flight his left elbow was shattered, and he again fainted. On regaining consciousness he found himself still being attacked, but notwithstanding he was now severely wounded in both legs and his left arm shattered, he dived at the nearest machine and shot it down in flames. Being greatly exhausted, he dived out of the fight to regain our lines, but was met by another formation, which attacked and endeavoured to cut him off, but after a hard fight he succeeded in breaking up this formation and reached our lines, where he crashed on landing.

This combat, in which Major Barker destroyed four enemy planes (three in flames), brought his total successes up to fifty enemy machines destroyed, and is a notable example of the exceptional bravery and disregard of danger which this very gallant officer has al-

ways displayed throughout his distinguished career. He was awarded the V.C. in November of the same year. One could add nothing effectively to the graphic simplicity of the official narrative of a battle between one Canadian and sixty enemy craft, in which the Canadian not only fought his way through such overwhelming odds, but disposed of at least four of his foes.

Alan Arnett McLeod was the third Canadian flying man to win the Victoria Cross. While flying with his observer, Lieutenant A. W. Hammond, M.C., attacking hostile formations by bombs and machine-gun fire, he was assailed at a height of five thousand feet by eight enemy triplanes which dived at him from all directions, firing from their front guns. By skilful manœuvring he enabled his observer to fire bursts at each machine in turn, shooting three of them down and out of control. By this time Lieutenant McLeod had received five wounds, and while continuing the engagement a bullet penetrated the petrol tank and set the machine on fire.

He then climbed out to the left bottom wing, controlling his machine from the side of the fuselage, and, side-slipping steeply, kept the flames to one side, thus enabling the observer to continue firing until the ground was reached. The observer had been wounded six times when the machine crashed in No Man's Land, and McLeod, notwithstanding his own wounds, dragged him away from the burning wreckage at great personal risk from heavy machine-gun fire from the enemy's lines. This very gallant pilot was again wounded by a bomb while engaged in this act of rescue, but he persevered until he had placed Lieutenant Hammond in comparative safety, when he himself fell from exhaustion and loss of blood. His wounds were so serious that for months he lay between life and death, but eventually recovered and returned to Canada. Four months after he reached his home in Manitoba, he contracted influenza. In his weakened

condition he was unable to withstand the attack, and this fearless lad of nineteen " went West " on his long leave.

Something has already been said of the project of a Canadian Air Force. This was a gradual development, and, as already mentioned, did not take definite shape until toward the end of the war. As the result of negotiations between the Canadian Overseas Ministry and the Secretary of State for the Air, certain arrangements were agreed to which it was felt would help to preserve the identity of the large percentage of Canadians included in the personnel of the Royal Air Force. The Imperial authorities undertook to furnish the minister with a nominal roll of Canadians in the Royal Air Force, and to advise him from time to time of all accretions to and deductions from it. All Canadians in the Royal Air Force were to be permitted to wear a Canadian badge either on their shoulder straps or on their sleeve. It was agreed to give Canadian representation on the R.A.F. Headquarters and Staff. A monthly statement of the exploits of Canadian airmen was also to be furnished, with a view to its dissemination to the Canadian public.

At the same time it was agreed in principle that Canada should have a flying corps of her own, which, while distinct in its organization and administration, would form part of the Royal Air Force for the purpose of operations in the field. The agreement was crystallized in a Memorandum dated July 8th, 1918, and subsequently confirmed so far as Canada was concerned by an Order-in-Council. It was realized of course that such a force must necessarily be a small one, as the efficiency of the Royal Air Force must not be impaired by withdrawing large numbers of Canadian airmen; neither was Canada in a position to meet the very considerable expenditure involved in the maintenance of a large force.

Stripped of official verbiage, the Memorandum and the Order-in-Council provided for the organization of two Canadian air squadrons, the type of unit and equipment to be decided by the Air Council. The officers were to be drawn from Canadians who could be released from the Royal Air Force, and who were to be replaced by officers transferred from the Overseas Military Forces of Canada; other ranks to be provided partly by transfer from the Royal Air Force, partly by enlistment or transfer of suitably qualified men from other Canadian services. The Canadian Government was to assume responsibility for the pay and allowances of the force; the Imperial authorities to supply machines, technical equipment, etc. The Canadian Air Force was to be treated as a unit of the Royal Air Force, for purposes of training, and for command and administration in a theatre of war. A Canadian Air Force section of the Canadian General Staff was created, the organization of the two squadrons was proceeded with, and they were in course of training for active service when the signing of the Armistice made it unnecessary to send the squadrons to France. It was decided, however, to complete their training along lines that might fit them for post-war flying in Canada, special attention being paid to wireless training, photographic work, aerial geographical training, and cross-country flying.

At that time it was apparently anticipated that a flying corps would necessarily form a part of any future Canadian military organization. Subsequent action by the Canadian Government, however, rather tended to discourage the idea. Various plans for such a corps were prepared and discussed, only to be rejected in succession, probably from motives of economy, although the British Government had presented a large number of aeroplanes to the Dominion. Finally an act was passed by the Dominion Parliament creating an Air Board for the control of aeronautics.

A BOMBING MACHINE ON A NIGHT RAID

FIGHTING PLANES LEAVING THEIR AERODROMES

Canadian Official Photographs

The Air Board, under the terms of this act, is vested with wide powers. It is to study the development of aeronautics in Canada and other countries; to control and manage all aircraft and equipment necessary for the conduct of any of the government services, and to construct and maintain government aerodromes and air stations; to prescribe aerial routes; to investigate and report upon proposals for commercial air services in Canada; to co-operate with the Air authorities of other countries; to make regulations respecting the licensing of pilots, the registration, inspection, etc., of aircraft, aerodromes, and air stations, the conditions under which aircraft may be used for carrying goods, mails, and passengers, and other like regulations.

These are wide powers, and very necessary powers if aviation is to be developed in Canada either for national or commercial purposes; but they amount to very little unless or until the Government provides the funds for a national service. All other nations are going ahead energetically with the development of aviation. Canada alone lags behind, and that despite the fact that Canadians have demonstrated their peculiar aptitude for aviation, and the further fact that no other country offers bigger opportunities for the effective use of aircraft in such national services as mail carriers, forestry, exploration, surveying, and the development of illimitable natural resources. Commercial aviation will develop naturally in the Dominion as elsewhere, but its growth will be more systematic and more effective if it is based upon an established national system.

3. With the Fleet

The seaplane officer, unlike his comrade of the land forces, saw service both in Canada and overseas. Some account has already been given, in another vol-

ume of this series,[1] of the useful services of seaplanes in protecting the Atlantic coast of the Dominion. What is said here will, therefore, be confined to their work overseas.

It may be noted at the outset that, as in the case of the aeroplane, the seaplane and its equipment underwent an extraordinary change during the four years of the war. In the early part of 1915 the only seaplanes available were small machines, single-seaters, with no machine guns, no bombs, often enough no compass. They could be used only for scouting. Offensive work was out of the question.

The first stage of development was to two-seater machines, carrying sixteen-pound bombs. From that point the seaplane rapidly grew in size, speed, and fighting strength. Machine guns were introduced. Bombs increased in weight, and consequently in effectiveness, to 65 pounds, 100 pounds, 230 pounds, and 500 pounds. The quality and power of the engines were correspondingly improved. From 100 horse-power, they developed to 225 horse-power, to 240, to 265, and finally to 385 horse-power. Toward the end of the war, in place of the small, slow, and comparatively ineffective machines of 1915, the flying men of the sea were provided with huge machines equipped with two 385 horse-power Rolls-Royce engines, 500-pound bombs, nine machine guns, and a crew of four — two pilots, or a pilot and a navigating officer, an engineer, and a wireless operator.

Generally speaking, the mission of the seaplane was to assist in defending the coasts of the British Isles from attack by surface boats, submarines, or aircraft. It patrolled the coasts, out to a distance of one hundred miles or more. It accompanied the fleet in the North Sea, special craft known as seaplane carriers having been built to accommodate it. It carried out a variety of duties, including raids on Dunkirk and

[1] See Vol. IV, pp. 283, 290.

Zeebrugge, but its most important work was that of harrying the treacherous U-boat. For this it was, in time, equipped with two invaluable appliances, the hydrophone and the depth charge; the former revealed the presence of the submarine, and the latter, properly placed, sent it to the bottom.

Obviously the seaplane had many advantages over every type of surface boat in hunting the submarine. The horizon is not only vastly wider because of the height from which it is viewed, and the victim more readily discovered beneath the surface, but the speed of the seaplane, though considerably less than that of the faster types of aeroplane, is much greater than that of any surface craft. In fact, the grim game between submarine and seaplane was a good deal like that between whale and whaler, with the advantages rather on the side of the whaler. The submarine, once sighted, had no means of escape except by sounding, and, like the whale, it had to come back to the surface sooner or later, lacking even the whale's faculty of sight under water. Meanwhile the seaplane, able to follow its movements pretty accurately, could search it out with depth bombs until the telltale oily surface told the story of another sea-wolf sent to its doom.

The seaplane has, also, largely revolutionized the strategy of sea warfare. It is practically impossible to-day for a hostile fleet to approach one equipped with seaplanes, without the latter having complete information as to its strength in ample time to avoid a conflict, if that seems the wiser course. Seaplanes are in a very real sense the eyes of the fleet, and their presence tends to pretty well eliminate the element of surprise that became a factor in so many sea battles of the past. In the old days — such a very short time ago in point of years — the horizon was limited to that which might be seen from the crow's-nest of a battleship, say one hundred and fifty feet above the surface of the water. To-day the seaplane may not

merely rise in a few minutes to any convenient height, but it can range at speed in immense circles about the fleet, sending information by wireless to the admiral. As an illustration of the value of dirigibles, and incidentally of all aircraft, in naval warfare, it has been officially announced that for a considerable period of the war the Germans maintained a regular patrol of airships from the west coast of Norway to the mouth of the Scheldt. This patrol was so effective that it became almost impossible for British war vessels to approach Heligoland or the North German ports without wireless warnings being sent to Germany of their presence and strength.

Much has been printed about the work of the aeroplane in war, the means and methods of fighting in the air, and the characteristic adventures of flying men on the western front and elsewhere, but very little about the exploits of the seaplane. It will not be out of place, therefore, to close this series of chapters on Canada's part in the war in the air with a few typical incidents of life in a seaplane, as seen through Canadian eyes.

On one occasion an officer was sent out to bomb German light cruisers, which had developed an irritating facility in getting over to the English coast, shelling unprotected towns, and scudding off before word could be got to the protective forces. On this occasion the errand proved a fruitless one. Nothing resembling a German cruiser was anywhere in sight, although the seaplane had scoured over the sea to the Belgian coast.

Having several perfectly good bombs, the Canadian disliked the idea of taking them back to his base, if a suitable target might be found. Where could he use them? Why, Zeebrugge, of course. A particularly happy inspiration, because up to that time seaplanes had not been able to try their luck in hitting the famous mole, or the canal works, or the U-boats in the

harbour. His would be the glory of blazing a new trail for the seaplane. But he dare not try it without permission. That would mean a court-martial, whatever his luck with the bombs. Therefore he sent off a wireless to his chief: "May we bomb Zeebrugge?"

Zeebrugge was now in sight, and presently he was circling over the port, making the best use he could of the fog that drifted in. There was not enough of it, however, to give him much shelter, and he was soon an uneasy target for anti-aircraft guns, while flaming onions and star shells surrounded him on every side, one of the dreaded onions just missing his wing-tip. Round and round he went, waiting desperately for a message from home; his sense of discipline, and the thought of probable consequences, keeping his itching fingers away from the bombs. Round and round he went, the enemy's marksmanship improving momentarily. At last it became apparent that something had gone wrong with his message, and there was nothing for it but to give up the project and go home.

On the way back he ran into a heavy fog near the English coast, and drifted about hunting for landmarks. Nothing appeared for some time, and then without warning he found himself over London, with the anti-aircraft guns barking at him in a swelling chorus. There had been reports of another raid, and the batteries welcomed him with a howl of joy. He made one desperate attempt to let them know his innocent intentions, by setting off his single remaining signal rocket — the other having been used at Zeebrugge in a vain attempt to fool the enemy; but the batteries would accept no explanation. He was a Hun, and must come down.

About he turned and flew down the Thames, the antis following him in full cry. The whole coast defence system of his native land was now apparently out after his scalp. He dropped down in the estuary, boiling over with indignant profanity. No sooner had

he settled on the surface than a fussy little destroyer rushed down upon him, and was only with great difficulty prevailed upon to accept his signals. Finally he got his position, and made another start for home.

On his way, flying low because of a heavy fog, he barely escaped destruction by a pugnacious little trawler, which sent three shells at him at point-blank range. At last he knew that he must be close to his base, but, as a final injury added to repeated insults, a searchlight hit him full in the face and he was hopelessly lost in the glare. He circled out to sea again, and groped in for the shore. It was desperately trying work; the fog was impenetrable, and he might at any moment crash into the cliffs or a factory chimney.

Finally, by great luck, he managed to get down outside the harbour boom, and was presently rescued by a motor boat. As he was towed in, he found the landing crowded with flying men, cheering wildly. He landed amid a bewildering torrent of congratulations, out of which at length emerged the disgusting fact that his message had reached the station in this form: "Am bombing Zeebrugge!" Next morning's London newspapers were filled with dramatic stories of the air raid and the splendid work of the coast defences in bringing down one of the Huns.

Another story has to do with patrol work. A Canadian went out in a single-seater, and had to come down somewhere midway between the English and Belgian coasts. As he landed on the water, the tail-float, badly constructed, — in the language of the war, a dud, — opened out, filled, and the plane turned over. The airman had taken off his life-belt to make some hasty adjustments, it also having proved a dud, when a heavy sea broke over the plane, and the belt floated away. He sat for a moment debating whether to risk swimming after it or let it go. The risk was very real, as even if he succeeded in recovering the belt, which was drifting rapidly, he might fail to get back

to the plane. He decided to stay with the plane, as the better of two very poor chances.

This was in January. Eleven hours later the belt was picked up by a destroyer, many miles from where the plane was lying water-logged and gradually sinking, with a half-frozen flying officer still clinging to the struts. The officer's name was on the belt, and the destroyer already knew that he was out on duty and overdue. All craft were immediately warned by wireless to look out for him; but through a curious conjunction of circumstances the same boat that picked up the belt — a mere speck in the waste of waters — also found the plane, and rescued the airman, by that time too exhausted even to wave a handkerchief. As the boat that had been lowered to bring him on board was returning to the ship, the plane disappeared. Taking it altogether, this might fairly be described as a hairbreadth escape, and yet it is one of many similar incidents in the history of the war by land, sea, and air. Two hours later the airman was back at his quarters. He had a good night's sleep, and, in his own language, was fit as a fiddle in the morning.

A third and final adventure that may be worth telling takes us to Scapa Flow in the extreme north. The Canadian officer in this case was piloting one of the big seaplanes already mentioned, powerful machines with twin engines of 385 horse-power, armed with nine machine guns and 500-pound bombs, and carrying a crew of four, pilot, navigating officer, engineer, and wireless operator. The navigating officer on this occasion was new to the job, packed with theory and rather cocky about it, but quite lacking in practical experience. This by the way.

The plane was out hunting submarines, swinging about in great circles beyond the islands. Presently a U-boat was discovered, but managed to submerge, and the bomb went a little wide of the mark, as bombs will on occasion. The plane struck off at an angle to

warn some trawlers; came back and cruised around looking for the submarine. The latter was lying snug somewhere, waiting patiently for the plane to move away.

In this game the U-boat finally won out. The plane had other work to do, and made off. Now all this took place well out of sight of land, and in the bewildering, roundabout hunt the navigating officer had rather lost his bearings. The pilot, in a smaller plane, would have done his own navigating, but now he took his courses from the navigating officer. Yet subconsciously his mind had been working, and when the navigating officer gave him the course for the Orkneys he felt reasonably certain that he was hopelessly astray, and that instead of pointing toward Scapa Flow they were headed out into the open Atlantic.

However, it was the duty of the navigating officer to direct the course of the plane, and for half an hour or so the pilot followed the course given. Then, thoroughly convinced that they were getting farther away every moment from land, on a course that would take them out of the area of traffic, and with the petrol running perilously low, he took the law into his own hands, turned about, and started back in the opposite direction. He had been working out the courses, from his own memory and from what he could glean from the navigating officer, and now hoped, although not too confidently, that they were pointed for the Orkneys. In any event, he was satisfied that the course they were taking, if it did not land them on the Orkneys, would bring them within reach of some of their own ships, or perhaps the Norwegian coast.

It is rather a dramatic picture, — the pilot working feverishly against time, while the plane rushed out into the open Atlantic at eighty or ninety miles an hour, sometimes wrapped in fog, then bursting out into brilliant sunshine, with the sea far below appear-

ing and disappearing, now sparkling with laughter, then gloomily menacing. The pilot absorbed in his calculations, snapping a curt question at the navigating officer, checking and re-checking his figures; savagely cursing the engineer, whose wind is up and who cries in maddening iteration, "Where are we?" "Can you see land?", "Are we off our course?" The navigating officer, sulky and silent, vacillating between fear of the consequences of his error and obstinate refusal to admit it. Then the relief to all when the pilot, satisfied with the result of his calculations, swings the plane about and speeds back upon his course.

As a matter of fact, thanks to what the pilot admitted to be an extremely lucky guess, for the data upon which he based his calculations were too fragmentary to give more than approximate results, his course brought the plane direct to Scapa Flow, bearing a very crestfallen navigating officer, and a pilot convinced that it was lucky to be born a Canadian if you must be a flying man.

APPENDIX II

THE CANADIAN FORESTRY CORPS

LIKE other outside units of Canada's army overseas the Canadian Forestry Corps started as an experiment. When the matter was first suggested by the well-known Canadian lumberman Alexander McDougall, it was not particularly welcomed by the Imperial War Commission; but as the fight went on and transport became more and more precarious, the shortage of timber used in a thousand-and-one places in trench warfare and in the building of huts became serious. In February, 1916, an urgent cable was sent to the Duke of Connaught, then Governor-General of Canada: —

"His Majesty's Government would be grateful if the Canadian Government would assist in the production of timber for war purposes. Fifteen hundred men are urgently needed to work in British and French forests. Could a battalion of Canadian lumbermen be formed? Incidence of cost will be arranged as agreeable to the Canadian Government."

The raising of this battalion affords a splendid example of the readiness of Canada to assist the Motherland in any unexpected direction. By February 25th the formation of the 224th Battalion, Canadian Forestry Corps, was completed. Portable mills were provided and expert fellers, sawyers, carters, and haulers were established ready for work in Great Britain by April 12th.

It is difficult to conceive the many uses of timber at the front. The fighting men walked largely on timber, supply lorries drove on timber, railways of standard

and light gauge needed thousands of ties, millions of feet were used in the construction of underground tunnels and dug-outs, while in addition unlimited material was required for a multitude of other things, from ammunition boxes to huts and field hospitals.

At first the Canadian units were set to work in British forests only, and early in May were producing sawn lumber in Virginia Water Camp, Surrey; but so quickly did they show that they knew their business and could produce faster than the commercial plants in the Motherland, that the cry went back to Canada for more and more men and material. Colonel (now Major-General) McDougall was a far-seeing organizer. Taking a chance that the war would not end soon, he sent back one of his experts to Canada and the United States and, using his own financial credit, to the extent of $250,000, not waiting for red tape to unwind, he bought standard lumbering machinery and parts both in the United States and Canada. The officer entrusted with this task collected his supplies at New York, chartered a ship, and when the inevitable shortage of machinery appeared a few months later, when submarines were at the height of their activity, the material was safely stored in a London warehouse for immediate use.

By November there were six full Forestry battalions "in action." The call for lumbermen in Canada had been well answered, especially in April and May, when the lumbering season in the Dominion was over. Special battalions of French Canadians were organized. All these units were commanded by experts, men who had given up big salaries at the call for help. Before Christmas an arrangement was arrived at with the French Government to cut timber in the fine French state forests and thus relieve the hard-pressed cross-Channel traffic. The Canadians went over, fully equipped, built their own mills, operating at first at Bois Normand, and finally became such a success that

several battalions were loaned to the French and worked in the Vosges and Jura mountains, cutting all classes of timber, from heavy twelve-by-twelves for gun positions to finely cut parts used by the French for military huts. Before the end of the war, they attacked a fine spruce forest in the Vosges and were making intricate wooden parts for aeroplane construction.

By June, 1917, the Forestry Corps, with full representation on the Allied Board, had eighteen thousand men working in England, Scotland, Wales, Ireland, and France, and at one period they sent rangers to the islands of Lemnos and Imbros, but the Salonika expedition completed operations just as the men from Canada were packed up and on board a transport at Marseilles.

The corps did another piece of efficient work in England during the German air raids, for the Home Defence air squadrons. These units needed clearly marked landing-places for night landing after pursuit of Zeppelins and Gothas. The centre of a forest, well cleared and levelled, made an ideal spot for night-flyers to land, and the Canadian Forestry Corps constructed over thirty of these, distributed all the way from Scapa Flow to Portsmouth. The Air Minister paid them the compliment that they had much to do with the defeat of the Zeppelin.

Before the war Britain had imported 11,500,000 tons of lumber annually as against 900,000 tons, including pit props, which she produced. At the time of the Armistice the whole Canadian Forestry Corps was producing the equivalent to Britain's pre-war import — all for military and naval purposes. In the King's park, at Windsor, probably the largest Canadian unit working in England turned out over 730,000 board measure feet in January, 1918. This was probably the record for England, but the mills operated in France were not far behind this record. Those work-

MAJOR-GENERAL ALEXANDER McDOUGALL, C. B.

ing in the war zone made a 700,000 mark for three continuous months running and those working on the pines of the Landes, near Bordeaux and right under the shadow of the Pyrenees, also did splendidly.

At every camp of the fifty-four scattered through the war territory, the Canadian Forestry Corps built and maintained all of their plants. At central places reserves of spare parts, specially brought from Canada, were established, and the corps was entirely self-supporting. The mill premises were all "home-made." They included, besides the mill building, canteens, officers' messes, sleeping huts, kitchens, bath-houses, hospitals, and even theatres where divisional entertainment companies used to play regularly. The buildings were all heated by wood stoves, brought from Canada, and of the type found in the camps the men had been used to at home. Roads and railroad sidings were constructed to the mills. Everything was done for the comfort of the foresters. At the time when rations in general were reduced, Major-General McDougall pleaded, and not in vain, that the active work of the men in wood and mill demanded the full ration, and finally he obtained it for them.

The makers of the Canadian Forestry Corps, all of whom came through the war with well deserved Imperial decorations, were men who stood high in the lumber world in Canada. Major-General Alexander McDougall, C.B., who was director-general, son of Lorne McDougall, former auditor-general of Canada, is a member of the well-known firm of McDougalls and M. J. O'Brien and, in addition, a considerable owner of timber limits in Quebec and Northern Ontario. Brigadier-General "Barney" Hepburn, C.M.G., deputy director-general, is a member of the Federal Parliament for Prince Edward County and has held his seat since 1911. He was connected with transportation in Canada before the war and president of several shipping companies which later were merged into

the Canada Steamship Lines. Colonel Gerald White, C.B.E., son of a former speaker of the House of Commons and who is now a member of the Senate of Canada, was director of timber operations in Great Britain. Brigadier-General J. B. White, D.S.O., was director of timber operations in France. He was an old soldier in Canada and himself raised a forestry battalion from Northern Ontario which did splendid service. Before the war he was manager of the G. H. Perley Company and is now a director of the Riordon Pulp and Paper Company. And these outstanding men in Canada's lumber world were not the only ones. Each colonel had had practical experience before volunteering for overseas service. They gave up lucrative positions and concentrated their whole efforts on making the Canadian Forestry Corps the great success it was. Colonel J. B. Johnson, D.S.O., who had charge of the Vosges and Jura timber operations of the French army, was an old McGill professor in mechanics, and scores of improvements in the Canadian mills were due to him.

On November 11th, 1918, the grand total of officers and men of the C.F.C. in France and Great Britain amounted to 23,979. But this was not all; at some places, — take the Landes, Noyon, and the Marne operations, for example, — the Canadians had six or seven thousand German prisoners working under them in bush and mill yard. Portuguese, Finns, even Chinese, were used in other places, and these swelled the ranks of those working under the Forestry Corps command to 31,447 — a larger force than the First Contingent of Canada's overseas army.

It was early in the game, when the Canadian fighting forces were at Vimy, that it was decided that the woodsmen should be given real military training and taught rifle, bombing, and machine-gun work. On more than one occasion this training came in useful. At many places their mills were so close to the lines

IN THE VOSGES MOUNTAINS

IN THE JURA MOUNTAINS

THE FORESTRY CORPS AT WORK

Canadian Official Photographs

that they were heavily shelled, but the men from the backwoods worked steadily on. When the Germans broke the British line in November, 1917, several companies which had been working at Ham found themselves in the fighting line and battled bravely with the Imperial troops. Up on the Belgian coast they were building big timber gun positions ready for use if the Belgians and British made their contemplated advance at Dixmude, and they assisted *confrères* in the Canadian railway battalions in handling the big British naval guns.

What the operations in Britain and France meant to the sorely tried Allied merchant marine may be gauged from an official report of the work. The production on the spot is estimated in the British report to have saved sufficient tonnage, if utilized in importing much needed food-stuffs, to provide for from twelve to fifteen million people, or one-third of the population of Great Britain.

By the end of the war the Canadian Forestry Corps had produced 813,541,560 feet (foot board measure) of various sizes in finished timber; 308,629 tons of rounded timber to make gun positions and dug-outs — and roads — and 806,502 tons of railway ties and slabs. They supplied over three million feet of finely cut, picked spruce to the French authorities for aeroplane manufacture.

Major-General McDougall, in his final report, sums up what might be called the sentimental side of the corps and what its work has done to advertise the Dominion as the great lumber centre of the world. He says: "It is not too much to hope that the work of the Canadian Forestry Corps in Britain and France has contributed materially to a more complete understanding between the Dominion and the Home Country. Wherever the Forestry Corps have been at work they have had kindnesses showered on them, courtesy and hospitality abounding, while the men of the corps

in their turn, by their exemplary behaviour and their skill as lumbermen, cannot fail to have impressed most favourably the people among whom they have worked. They have operated in out-of-the-way places right in the heart of rural England or the Highlands of Scotland, where people in their ideas might well be supposed to be rather behind the times. Many of them have taken back to Canada with them wives from Bonnie Scotland or other parts of Britain.

"The interest taken in the men and the lively sympathy shown everywhere have only followed the example shown by Their Majesties the King and Queen. A royal lodge at Virginia Forest was placed at the disposal of the Canadian officers by His Majesty, who showed every desire to sacrifice the timber in his royal parks that could be suitably exploited to meet the fighting men's need. Scotch lairds gave up their cottages for the use of the men and helped in every way to entertain them themselves. The work of the Canadian Forestry Corps was thus not only of the most vital assistance in meeting the need of timber for the war and in saving tonnage, but was of permanent value in that it has knitted more closely the peoples of Britain with their compatriots scattered over Canada."

It was the same in France. The self-reliant engineers who planned and attended the Canadian mills put in electric lighting systems for the little villages of the valley of the Jura. They built, with their own equipments brought from Canada, good roads through the forests they had partly cut. Gravity water systems were constructed in the small towns which for centuries had been served only by the village wells, and, best of all, when there came the farewell and peace, the little white huts that nestle against the green of the big mountain pines were left for the use of the peasants. The majority of the mills in France were purchased by the civilian population and made into

community organizations. It is needless to say that rural France will always have a soft spot in her heart for the men from overseas and they will never be forgotten.

The Canadian Forestry Corps stands out prominently among those forces, of which there were many thousands in the aggregate, which " fought " behind the lines. They did their duty well.

APPENDIX III

CANADIAN RAILWAY TROOPS

1. General Sketch

AT the beginning of the Great War there were few trained railway troops in the British army. Numbering fifteen hundred strong, they were a much neglected unit of the Royal Engineers and the methods they had been taught were more thorough than rapid. Most of the railways in France are state owned or controlled and the French General Staff decided that it could alone attend to war maintenance and new construction on the entire western front. But the armies and the area of the fighting grew beyond all expectation. The British declared they could rely on their motor trucks and the good roads of France to keep their armies supplied. By the spring of 1915 it was realized that neither France nor Britain had the men or the material to keep up with the pace the war was going; the motor trucks were a failure and the cry for more railways, and better maintained and constructed railways, went out.

In 1914 the large transportation companies of Canada offered to raise operating, constructing, and maintenance units, but the Imperial authorities frowned on what they called such a " fanciful scheme." Early in 1915 the British War Office climbed down and asked if two Canadian battalions, with full equipment and rails, could be raised. The Canadian Government had them in France and working by August, and the big railway men of Canada, with Major-General (then

Lieut.-Colonel) J. W. Stewart, C.B., C.M.G., of the great Foley, Welch, and Stewart firm, at their head, decided more would be wanted and went on with their organization, although unofficially. By the end of the war there were sixteen thousand expert railway construction and operating men on active service, and they did everything from building lines to working big guns and fighting in the line. General Stewart took Colonel Angus McDonnell, C.M.G., with him when he went to France to command the Canadian Railway Construction Battalion and to act as Deputy Director of Light Railways. How the situation was relieved and how these Canadian units supplied the wants of the whole British army on the western front is told below.

The Canadian Overseas Railway Construction Corps was the first unit of its kind to go overseas on active service. As early as February, 1915, a request was made to Lord Shaughnessy, then president of the Canadian Pacific Railway, to prepare details of establishment and equipment for a railway construction and repair unit, with an approximate strength of six hundred. The Canadian Pacific superintendents from St. John to Vancouver sent in the names of practical men willing to join the battalion, and out of over three thousand volunteers some five hundred and forty were picked. It was the beginning of a great organization which developed as the war was prolonged. The force was commanded by men who had big reputations in Canadian railway construction. Colonel C. W. P. Ramsey, C.M.G., was in charge of the first unit and was later followed by Colonel J. G. Reid, D.S.O., the former being chief engineer of the C.P.R. and the latter one of their ablest men on construction.

The Canadian Railway Construction Corps on arrival in France immediately showed their versatility. They were an untried unit and perhaps their usefulness was questioned by the Imperial authorities. It

was another fancy battalion like the Forestry Corps. They were lent to the Belgian armies fighting around Dixmude and in a few weeks had to their credit some of the most important war construction work in that part of the line. Engineer parties worked with the British naval siege guns then firing up the coast, building the cement foundations from which they were discharged and setting up and taking down the ponderous weapons. They built camouflaged railway spurs from which the 10-inch truck-mounted naval guns could slip in and fire at night; and when the Germans had located them by vibration instruments and started to shell their supposed position, they would be miles away, safely ensconced on a siding.

It was not long before the Belgians used the unit in building two-foot-gauge railways among the sand dunes of the coast, which brought up the ammunition and supplies to the front line. They designed concrete gun emplacements so strong that they resisted the bursting of the first high-explosive shells the Germans introduced — 11-inch.

This unit had come over fully equipped with railway construction machinery. They had steam shovels which had cut many a grade on their railways at home, scrapers, concrete mixers, transhipment gear, and the thousand-and-one things that were common sights on construction in Canada, but had never been used in old-fashioned Europe. The steam shovels and the cement mixers made many almost invulnerable emplacements for the British and Belgians in the first few months of active service.

In October the unit got sudden orders to proceed to Salonika and put the Uskub Railway in war condition. They were just about to sail when the Serbian débâcle changed all plans and they were shipped back to France, where they started in at last on real railway construction.

In the meantime their base units had not been idle

and had added several hundred miles to the sidings at Newcastle-on-Tyne, then one of the shipping points to the British armies in France and Belgium.

The first real work in France was at Audruicq, the central railway supply depot of the British armies. At that time it had only forty miles of sidings. This great yard was always in Canadian hands and was continually being enlarged. A Canadian operating corps later took on the sorting and the making up of the supply trains with Canadian methods and Canadian engines. At the time of the signing of the Armistice there were over one hundred and fifty miles of sidings at this centre.

The Overseas Construction Corps began the building of light railways as an experiment. They laid down a strategic standard-gauge line around Kemmel and connecting those small towns behind Ypres, from which heavy howitzers by counter-battery work saved many lives among the Canadian infantry in the salient. From these they ran smaller lines into the Canadian positions.

In March, 1916, steel box cars in sections began to arrive from Canada to help in the transportation problem. The shortage of rolling-stock was serious. The motor truck had failed and the British authorities were waking up. Could the Canadians erect the box cars? Colonel Ramsey answered the question. In three days he had his bridging plant and air compressors set up and converted for the work at Audruicq. Some thirteen hundred cars were placed in commission before the British authorities had their engineers' plant in operation.

The C.P.R. engineer was the most versatile man on the front. One day the writer was sitting in the commander's tent chatting of old construction days in Canada. The colonel was in his shirt-sleeves smoking a corncob pipe. Up to the tent drove an Imperial Staff car and out of it jumped two British colonels,

red-tabbed and important. They asked Ramsey to call the commanding officer.

"Don't have to," replied the Canadian. "Here he is." And he tapped his own chest with the friendly pipe.

"Really!" exclaimed the senior Imperial officer. They gave the nonchalant Canadian their credentials. Both were men high up in the transportation department at General Headquarters.

"You haven't a diver in your outfit?" they asked; by their intonation it could be judged that they expected a negative answer.

"How the hell would I build bridges without one," replied the colonel. "How many do you want?" They wanted two immediately to go to Dunkirk, where a steamer loaded with standard-gauge rails had sunk in the freeway.

"Tell Jake and Bill to get their outfits," said the colonel to his adjutant. To the Imperial officers: "Sure you don't want more?" Two were enough and in less than twenty minutes Jake and Bill were off to the sea-coast.

"How many divers have you got?" asked the writer. "Two," said the colonel; "but there's half a dozen more of my old men who would go diving if I asked them."

Of the big jobs this unit completed, only a few can be mentioned. In June, 1916, two seventy-ton Atlantic steam shovels — their like had never before been seen on the continent of Europe — arrived, and with them two standard-gauge pile-drivers and track-layers, heavy engines and all complete. His Majesty King George V on a visit to the front spent a whole day watching them work.

By August, 1916, the Overseas Construction Corps had, in addition to three great yards, built sixty miles of standard-gauge railway. The attacks of the British on the Somme a few weeks later proved conclu-

sively that trucks were of little use, and from then on thousands of Canadians were asked for and sent over, until finally, under the directorship of Major-General Stewart, there was a great army of experts, building, operating — and destroying, for sometimes, as in March, 1918, the battle went the wrong way. In command of these new battalions were men whose names ranked high in Canadian railway work: "Chil" Hervey, J. G. Reid, "Larry" Martin, "Big Jim" Macdonald, Blair Ripley, Griffin of Vancouver, Jack Harstone, Jim Cornwall, and last, but not least, Colonel J. B. Clarke, who had been construction engineer with the Canadian Northern. Born handlers of men, with the uncanny knowledge of railway engineering gained by practical experience, they never failed, and record after record, often under fire, was broken. Their work took them all over the British front; they did not construct for Canada's army alone.

Chasing along after the retreating Germans was one of the tasks the railway construction battalions enjoyed. In most cases the crafty Hun, short of material, had ripped the road-bed bare of rails and ties. Seven miles a day with new material was what the construction troops usually had to their credit, and they had to burrow the embankments for delayed mines. After the first Battle of the Somme these construction experts, with added labour, built fifty miles of new line and sidings and reconstructed eighty more, reaching all the way from Amiens to Bapaume and Etricourt, with ammunition and food dumps at convenient intervals.[1] In the push of November, 1917, for Cambrai, they built a camouflaged ramp which allowed guns and transport to cross the dry Canal du Nord. It climbed down one side of the deep waterway and up the other, some two hundred feet away, and the colour of it and the shape were like the canal. Half a mile off they constructed a flimsy canvas scenery bridge

[1] See *ante* p. 22 et seq.

that stood out prominently but couldn't carry the most diminutive bugler at the front. It was vigorously shelled by the Germans, while the troops near by escaped punishment.

Altogether the Overseas Construction Corps alone built or rebuilt some five hundred miles of standard-gauge line. Often they worked under shell-fire and sometimes actually fought with the infantry. The awards of this unit included one C.M.G., nine D.S.O.'s, ten M.C.'s, six D.C.M.'s, twenty M.M.'s, and six Belgian *Croix de Guerre.*

So useful had the units become by January, 1917, that Brigadier-General Stewart was made Deputy Director-General of Transportation and was taken on the Staff at British General Headquarters. He had supervision over the Royal Engineers' railway section and was general consultant for the whole front, including the French. By this time many battalions had been hustled over from Canada and the big transcontinental lines had given up for war purposes all the equipment they could spare. The Canadian Government, when the shortage of rails was most keenly felt and a new line from Paris to the coast had to be rushed, owing to the threat to Amiens, tore up many of the branch lines in the West and sent the rails and ties to the assistance of the fighting men. By June, 1917, there were ten fully equipped Canadian railway battalions working in France, outside of the Canadian Corps, and in addition there were many operating companies, working Canadian-made engines, up and down the lines that supplied the great British army, then at its zenith.

Sir Edward Kemp, the Overseas Minister of Militia, in his report states how the railway troops helped the Canadian fighting battalions at Vimy Ridge. He adds: "The railway troops arrived in France just in time to prove their great worth. During the German retreat in March on the Somme, these battalions

were able to push forward a standard-gauge line with surprising rapidity, in spite of the obstacles and difficulties imposed by atrocious weather and the thoroughness of the destruction the Huns left in their wake.''

In addition the railway men from Canada built all the strategic lines which made the Australian victory complete at Messines. They ran their ammunition and supply trains right up under the famous ridge, and it was in this battle that the construction men counted their first casualties. Afterwards, mending breaks in the line under the noses of the Germans, from the Channel ports as far south as Montdidier, they were under fire many times. Some of the men of the 4th Railway Battalion actually were attached to the Royal Navy, and one officer and five men were even promoted to naval rank and won naval decorations for useful work in building camouflaged railway spurs and cement foundations for the huge 15-inch guns borrowed from the British navy. Part of another battalion built a fine system of light railways when the Belgian army needed them badly, and yet another was called to the aid of the French, then at Kemmel and Mont des Cats, to construct lines that would take their big guns and ammunition up those commanding eminences behind Bailleul.

The York County battalion (127th Ontario) had asked to be turned into a railway unit so that they could get to France with their own identity. They became the 2nd Railway Battalion. Their fighting qualities were proved on many occasions, and at Villers-Bretonneux, when the Fifth British Army was disorganized, they were the only complete battalion among those who held on grimly and kept the Germans from Amiens. They had sixteen well-organized Lewis-gun teams — and machine guns counted then. Their colonel was an old-time engineer on the Canadian Northern Railway and he knew both his men and

his job. There was a hurry-up call for a ten-mile stretch of traffic road to be built west of St. Omer over the marshes. The Germans, it was discovered, meant to make another thrust for the Channel ports late in 1917. There were only two roads on which supplies could be hurried up and guns brought back in the case of a reverse. The British authorities gave the colonel a month to do the job. He had to haul all his material from Dunkirk, and yet in sixteen days heavy guns and tanks were going north, in the right direction, to where the desperate and last German thrust for the Channel had begun.

At one time there were twenty miles of standard-gauge rails in No Man's Land, at Strazeele, in front of Hazebrouck, held by the Australians. Steel was badly needed by the Germans as well as the Allies and therefore the enemy made no attempt to destroy the material, hoping that they would later gain the ground back. These Canadian railway men were asked to recover the rails. Night after night they put in white oak plugs where the Germans had blown the railway from Hazebrouck, which searching aeroplanes never noticed as a repaired line. They brought cars up on this, pushing them against the grade by man power. In Hazebrouck they built an electric plant and ran wires out almost to the Australians' line, where they put in a silent winch. Then they greased the remainder of the ties, and each night, leaving the face of the pile up to assure the Germans nothing was happening, they hauled out by wire cable ton after ton until only about enough to construct a mile of line was left as camouflage. All the time, they were under machine-gun fire; but they were good chums of the Australians and if a German battery became too attentive the Anzacs raided it. By the pile of steel was an old mill in which patrols from both sides used to get flour of fine quality. The Canadian colonel, as thanks for what the Australians had done, attached his winch wire to the

bags in this grindery and nabbed over two hundred sacks for the Anzac troops.

When Amiens was so closely pressed in 1918, it was the Canadian railway troops, with additional labour in the shape of Indian cavalry, which built the line that finally held. Such was the disorganization in the Fifth Army at that time, that the Canadian engineers attached to these construction units actually planned the forward works. In the same Amiens show the railway station at Amiens-sur-Roc was badly shelled and the line broken. An ammunition train containing hundreds of tons of high-explosive shells, which might have destroyed half the town, was stalled. Two battalions of railway troops went out one night when the usual bombing raid was on, and, undaunted, repaired the line in the great rock cut. A Canadian-built engine, with a Canadian crew of one of the big transcontinentals, plugged its way up to the train, and after hard pulling managed to get the cars back to safety, where they were unloaded and the ammunition sent up to the guns.

Take the 6th Battalion as another example. Big yards were needed in case Amiens fell to the enemy. Colonel " Larry " Martin, its commander, in civil life the head of the great Ontario construction firm of Martin and O'Brien, was given free choice of the situation for this yard. He found a large hill some few miles from Berck Plage on the Abbeville-Amiens line.

" This will do," said the Canadian colonel.

" But why choose such a hill? " asked the Imperial engineers.

" You'll see, in good time," was the retort.

In three weeks, with the aid of immense steam shovels and engineers from Canada, he had the hill cleared away and a firm bed for his yards. The hill, when tested by the colonel, was found to be all gravel of the finest kind, and he had gained

enough ballast to build the whole of the new strategic line.

When the last great push began, practically all the Canadian railway troops were attached to the Canadian Corps and went with them through their final victories. There was never any lack of communications and they kept the standard-gauge lines well up to Brigade Headquarters, while the marvellous light railways stretched out like a web to all the forward details. They helped the Canadian engineers in bridge building and repairing roads, many times under fire, but their crowning achievement may be said to have been the crossing of the Canal du Nord, when they had a standard-gauge line bringing up ammunition to the Canadian heavy guns, which shelled open a victorious way for Canada to gain Cambrai.

Altogether this unit of Canada's army was awarded 489 honours and decorations. They were a more outfit unit than any other on the British front — ready to "go anywhere and do anything." Each battalion was equipped with two hundred and eighty mules, ten lorries, and eight box cars, and with each unit there was an operating crew which in emergencies, and there were many, could work military trains as effectively as the men specially trained for the job.

During the year 1918 the railway construction troops graded 369 miles of standard-gauge line, repaired 838 miles, laid track for 1,038 miles, and on narrow-gauge graded 722 miles and laid 823 miles, most of it up close to the front line.

How their versatility was appreciated is shown by the fact that in the last summer of the war General Allenby in Palestine called for an expert party of bridge-builders. Six officers and two hundred and fifty other ranks, all volunteers, were chosen from the railway troops, and one of the structures for which they gained fame in the Holy Land was a large-spanned bridge across the river Jordan.

2. Light Railway Operating Company [1]

The order to mobilize No. 2 Section Skilled Railway Employees was issued on February 15th, 1917, under authority of Order-in-Council 261, dated January 27th, 1917. Captain Robert McKillop, of Montreal, was appointed Officer Commanding, and the entire company, consisting of three officers and two hundred and sixty-six other ranks, was recruited from Canadian railways within one month, at a cost of only five hundred dollars. On Friday, April 13th, 1917, the company entrained at Montreal for Halifax, embarked on the R.M.S. *Grampian* on April 16th, arrived at Liverpool on April 29th, and proceeded thence to Purfleet Camp, where a week was spent in quarantine. When released, the unit was ordered to Aldershot for training. This company was originally intended to operate broad-gauge railways in France, but the light railways were developing so rapidly that it was decided to send them to France immediately as No. 13 Canadian Light Railway Operating Company. Consequently the establishment was altered to five officers and two hundred and seventy-one other ranks and ordered to proceed to France on June 9th, less than four months from the date of the mobilization order.

It may here be stated that the object of the light railways was to relieve traffic on the heavily travelled roads and to ensure the rapid delivery of all kinds of supplies from broad-gauge railheads to the fighting line. Tracks of twenty-four-inch gauge were built in sections and could be rapidly laid to practically any desired point. The motive power was sixteen-ton steam locomotives and petrol and petrol-electric tractors of twenty and forty horse-power. The cars were of various types, ranging from one to ten tons capacity, mainly of the ten-ton variety. There was a won-

[1] The 13th Canadian Light Railway Operating Company was the only unit of its kind in the Canadian Expeditionary Force.

derful network of these railways in France and their usefulness can be understood to some extent when it is considered that each thirty thousand tons hauled by light railways eliminated ten thousand three-ton motor lorry trips.

The Director of Light Railways stationed at General Headquarters worked in close co-operation with the Assistant Director-General of Transportation and transmitted instructions to Assistant Directors of Light Railways at each Army Headquarters. These officers in turn worked through Superintendents of Light Railways in the various districts, who directed the operations of companies, the officers commanding being held responsible for movement of traffic.

In March, 1918, there were approximately thirty-two Operating Companies, six Army A.D.L.R. Staffs, G.H.Q. Staff, and thousands of men in Lines of Communication Workshops, all skilled railway men drawn from the British Isles, Canada, Australia, South Africa, New Zealand, and the United States. Adding to these attached skilled and unskilled personnel employed on construction and other work, the number of all ranks on the roll of the British light railway system would run well over a six-figure total.

Trackage in general commenced from points beyond which broad-gauge railways could not operate. Ammunition, R.E. material, food supplies for men and animals, and practically every commodity required in warfare, were transhipped from broad-gauge to light railway cars and taken to marshalling yards, where they were switched into trains for each destination. The main lines ran forward to lateral lines running parallel with the firing line and usually from two to three miles behind it. From these lateral lines tracks were laid to connect with trench tramway systems and to battery positions, dumps, field dressing stations, etc. There were also forward storage yards to which trains could be taken during the day and held for

Canadian Official Photograph

CANADIAN TROOPS ON CANADIAN LIGHT RAILWAY TRUCKS

night delivery by tractors without fear of detection by the enemy. Control posts were maintained at suitable points and trains were despatched and orders issued by telephone, the entire system being connected with G.H.Q. through the various H.Q.'s.

On arrival in France the 13th Canadian Light Railway Operating Company was ordered to Coxyde, in the sand dunes of the North Sea coast. The French were operating the light railways there at that time, but the 13th took charge on June 26th under the British Fourth Army.

A great offensive was being planned on the Nieuport front, the object being to cut off the German Northern Army, and a great number of guns and men were concentrated for the purpose. At several points heavy guns were placed in advance of field guns. Owing to the congested roads and the impossibility of moving traffic through the sand, the light railway played a most important part in assembling the necessary men, guns, ammunition, and supplies. Trains were run day and night, and an average of 1,500 tons of ammunition per day for two months were hauled to the various batteries. In many places the track was laid alongside the road and not only suffered from enemy gun-fire but also from congested traffic. However, nothing was permitted long to delay the continual stream of ammunition, and it is safe to say that no troops of any nation engaged in the war displayed more courage than this insufficiently trained company of Canadian railway men.

On many occasions trains were with difficulty delivered to batteries whose commanders refused to have them unloaded on account of heavy shelling and were taken back to the marshalling yard to await a more favourable opportunity. The unit became known on this front as the "Suicide Company." On one occasion three attempts were made to get a train of R.E. material through to a point of delivery at the com-

munication trench, and when at last, by repairing tracks which had been broken by shell-fire, destination was reached, all but three of the waiting unloading party were killed or wounded. The train was returned to the yard and delivered the following night.

On another night a shell landed in the middle of the track and a short time later a forty-horse-power tractor hauling a train of ammunition pitched into the hole made by the explosion. The tractor was re-railed and the track repaired by the wrecking gang on the following night.

No lights were permitted and great difficulty was experienced in communicating with the engineer. As a general rule, though not in all cases, cars were pushed forward and the conductor or brakeman rode on the head end. If an obstruction was discovered, it meant a race back through the dark to inform the engineer. As the speed of the trains was necessarily slow, serious accidents seldom occurred, but much delay was experienced. However, this condition was shortly overcome by the adoption of signals made with the lighted ends of cigarettes, which could be easily distinguished for several car-lengths. It was most remarkable how this simple method of signalling eliminated delay in delivering trains to their destination.

Toward the end of August, 1917, the proposed offensive was abandoned and the greater part of the ammunition and supplies was hauled back to the railheads. Shelling still continued heavy and the camp was moved twice before orders were received to report to the A.D.L.R., First Army.

From September 11th to November 6th, 1917, the main body of the unit was located at Lestrem on the La Bassée front, where the Portuguese troops were stationed, the remainder being scattered among various Imperial companies. On the latter date orders

were received to proceed to Achiet-le-Grand in the Somme area and report to the A.D.L.R., Third Army North. The district around Croiselles, Mory, and Death Valley was taken over on November 10th and a rather quiet winter was spent in this position, with very little shelling back of the forward lines, which were within range of the enemy field guns.

However, it was the calm before the storm, and at 5 a.m. on that memorable March 21st, 1918, the supreme offensive of the Germans commenced. Shells rained down all along the line and when the British guns replied the very earth trembled. As the enemy advanced control posts were abandoned one by one, all papers being destroyed and telephones removed by the men before leaving. The operator at Croiselles was compelled to make his way through a barrage by a circuitous route.

On March 22nd Achiet-le-Grand was evacuated, as most of the batteries which the unit had been serving had evacuated or been put out of action. The railhead was also being heavily shelled and bombed. In order to get all the power and equipment out, trains were run in convoy with a track repair gang ahead of the first train. A new camp was established at Rottemoy Farm and the operation of the line continued from there for a few days, ammunition being taken from Puisieux Dump to Bacquoy, whence it was taken forward by motor lorries.

As the enemy approached on March 26th the unit was ordered north to Marœuil, a few miles on the left of Arras. Only one man had been wounded during the evacuation, and all power, equipment, and tools had been saved excepting one small tractor and two cars destroyed by shell-fire and one steam locomotive which had overturned. All other light railway companies to the south lost their equipment.

In the early morning of March 28th, 1918, a shell landed in the middle of the camp, killing twenty-four

and wounding twenty-six men. It was the hardest of luck to lose so many men after passing through evacuation with only one casualty, but such is the fortune of war. Next morning the company arrived at Barlin, drenched to the skin after travelling all night, and sad at heart, for each man had lost a comrade or friend.

From March 28th to April 13th the unit rested at Houchin, and was then ordered to Choques to dig trenches, as the enemy had broken through the Portuguese front. Before this work was begun, orders came to proceed to Vignacourt, near Amiens. Here the company was set to work repairing roads and then to building light railways, as the enemy had captured a very large portion of the light railway system and there were several other surplus operating companies. When the 6th Battalion Canadian Railway Troops arrived to take over the construction, the 13th Canadian Light Railway Operating Company began operating construction trains.

On August 8th, 1918, the great Allied drive was launched on the Amiens front and many wounded were handled over the light railway to the casualty clearing stations and ambulance trains. In three days 10,000 were carried. The Allied advance was so rapid that the unit was ordered forward to Guillaucourt on August 13th, and after a short stay moved forward to Peronne and finally to Tincourt, near Roisel. The traffic forward from Peronne was heavy, as there was only one light railway operating in the salient created by the drive. The line was only seven miles long and sixty-five trains were run daily, hauling a daily total tonnage of two thousand to three thousand tons. As the enemy fell back, the line was advanced to Bohain, and, owing to the entire lack of all other means of transportation except motor lorries, practically saved the situation in that sector. In October, 1918, nearly fifty thousand tons of ammunition and supplies were

handled by the unit, train crews working at times as long as twenty-two hours without rest.

Then came the Armistice, and the unit had a well earned rest before proceeding to England early in March, 1919, for return to Canada and demobilization.

The following are copies of two letters of congratulation received by Captain R. McKillop, the Officer Commanding the 13th Canadian Light Railway Operating Company, from superior officers, the one from Brigadier-General G. H. Harrison, C.M.G., D.S.O., the other from Major M. P. Sells, Superintendent Light Railways, Fourth Army.

"April 4th, 1918.

"I want to very heartily endorse LeFevre's remarks to you, adding my sincere congratulations on the very splendid work done by you and your company. I am most awfully sorry about the extraordinary bad luck you had at Marœuil, after completing such valuable work. Please convey my congratulations to all ranks of your company."

"November 18th, 1918.

"Now that hostilities have ceased, and we have ceased to be the important branch of the transportation service that we were, I wish to thank you, and the officers, N.C.O.'s and men under your command, for the magnificent way in which you responded to the very heavy demands made upon you during the recent operations, which have brought us to the victorious end we all longed for. In spite of long hours on duty, difficult weather conditions, and shortage of power and fuel, the traffic was moved; traffic which could not have reached the forward area in any other way, on account of few and bad roads, and the mined broad-gauge railways, and the result was achieved only by the grit, perseverance and loyalty of all your company, who worked as one man and with one end in view. I am

grateful for your personal support on several critical and difficult occasions, and I heartily wish you and those who have so loyally worked under you all the good things that the blessings of Peace will bring to the Empire.''

APPENDIX IV

THE CANADIAN ARMY VETERINARY CORPS[1]

CIVILIZED man has always relied on the aid of horses in war. Apart from being of pre-eminent service in military operations, horses added much to the romance and glamour of many of the great military conflicts of history. In view of this fact, it is rather surprising that veterinary science was so late in developing. Although the art of farriery was practised in a crude form by the ancient Greeks, it did not reach Britain until the time of William the Conqueror and it was not until the beginning of the nineteenth century that the first British school of veterinary science was established in London. Prior to that time, military farriers devoted their attention chiefly to caring for the feet of the horses and keeping them properly shod. This was a work of great importance and frequently prevented the complete disorganization of whole campaigns. But the almost total lack of a knowledge of veterinary anatomy and medicine must have resulted in terrible wastage of the animals used in war, especially in conflicts where cavalry played an outstanding part.

The advent of motor vehicles led freely to the prediction that at last horses would be largely eliminated

[1] This brief review of the work of the overseas organization of the Canadian Army Veterinary Corps, of necessity is lacking in detail. An official history now in course of compilation by one of the officers of the corps treats the subject with much greater fulness. To the official in question, Captain Cecil French, who had experience with the Veterinary Corps in the field and extensive access to the official records in London, as well as to Lieut.-Colonel T. C. Evans, the writer acknowledges his indebtedness for much of the data used in the preparation of this article.

in wars such as the campaigns in France and Flanders, but actual experience proved the contrary. Military operations are necessarily restricted to the mobility of supply trains and artillery. Motor transport, organized to an astonishing degree of perfection, was of inestimable value, but it was lacking in complete mobility. Horses were proved to be an indispensable auxiliary to the motor transport services. The magnitude of the operations on the western front demanded scores of thousands of horses and mules. Such vast requirements drew heavily on the available supplies of these animals, so that it was a prime essential that wastage in every form should be checked and prevented wherever possible. This was the function of the veterinary corps of the several armies. It possessed no element of romance or adventure, but it was of great importance and value in maintaining the efficiency and mobility of each of the fighting units, without which they would have been all but helpless against the highly organized armies of the Central Powers.

When war broke out, the Canadian Army Veterinary Corps, in common with other units of the permanent forces, found itself quite unprepared for field service. The organization of the corps had been authorized in 1910, with headquarters at Ottawa. Sections were established at Kingston, St. Jean, Toronto, and Winnipeg. The officer placed in charge was Lieut.-Colonel (afterwards Brigadier-General) W. J. Neill, of Kingston. Only two mobile sections were in any degree of readiness for war in August, 1914; consequently, a great deal of organization work had to be carried out under the pressure of war conditions. The various other sections were brought up to strength as rapidly as possible, but this work was naturally handicapped from a lack of officers having military experience. No. 1 Section from Winnipeg was the first to get into harness. It entrained for

Canadian Official Photograph

VETERINARY OFFICERS AND N. C. O.'S OF THE 2ND DIVISION

Valcartier on August 23rd, 1914, less than three weeks after the declaration of war, with a total strength of three officers and twenty-three other ranks. Lieutenant J. R. J. Duhault, of the Permanent Corps, was in immediate command. After their arrival at Valcartier this section found plenty of work awaiting them. The camp had sprung into existence as if by magic, and in six weeks from the declaration of war it was completely equipped and capable of accommodating thirty thousand men. In carrying out this phenomenal piece of work about nine thousand horses were employed. Influenza broke out amongst these animals and the timely arrival of the veterinary section from Winnipeg and, a little later, of another from Montreal, did much to check the spread of what might have been an epidemic that would have proved a serious handicap. Sick-lines were established where diseased horses could be kept isolated and given proper treatment. A Remount Depot Convalescent Camp was established, which handled all cases of debilitation.

Meanwhile other veterinary sections were being rapidly mobilized. Captain (afterwards Lieut.-Colonel) T. C. Evans organized the first Canadian veterinary hospital, but it was not ready to embark when the first Canadian division sailed for England on October 4th, 1914. All the requisite supplies for the proper care of the horses were purchased and put in readiness for transport overseas. Lieut.-Colonel W. J. Neill was appointed Assistant Director of Veterinary Services of the overseas forces and with the able assistance of his subordinates developed an efficient and valuable force.[1]

Broadly speaking, the duties of the Veterinary Corps were of a dual character, for in addition to the

[1] It is of interest to note that of the 145 officers in the Canadian Veterinary Corps the majority were graduates of the Ontario Veterinary College, and in addition 203 Canadians held commissions in the Imperial Veterinary Corps.

care and well-being of all horses it had jurisdiction over the Remount Department, so that it was responsible for maintaining the requisite number of horses in every branch of the Canadian forces.

Each division of the Canadian Expeditionary Force had a senior veterinary officer, who was responsible to the senior veterinary officer at the Imperial Army Headquarters. Veterinary officers were attached for duty to each infantry and artillery brigade, ammunition column, and divisional train of the Army Service Corps. These officers had under their immediate command the first-aid sergeants, farriers, and shoeing-smiths who were attached for duty to the several units of the brigades. Furthermore, a mobile veterinary section with a veterinary officer in command was included in the establishment of a division. It consisted of mounted troops, every member of which was required to be a specialist in horsemanship. Theoretically, commanding officers were responsible for the animals employed by their units, but they seldom disputed the advice given them by the veterinary officers with respect to the care and disposition of the horses, particularly sick or otherwise disabled animals.

The embarkation of the horses of the 1st Division was commenced on September 23rd, 1914, and occupied a week, the work being delayed somewhat on account of insufficient stall-room on the ships. In all, 7,636 horses accompanied the First Contingent, of which eighty-six died before reaching England. Shortly after landing at Plymouth all the units were transferred to Salisbury Plain. No adequate shelters had been provided and, as a result, the horses suffered terribly from the rain and mud. Many of them died from pneumonia contracted under these trying conditions. In November, 1914, No. 1 Canadian Veterinary Hospital, in command of Captain Evans, and No. 2, in command of Captain F. A. Daigneault, arrived from Canada and were stationed on Salisbury Plain. When

the 1st Division left for France in February, 1915, the personnel and equipment of No. 1 was doubled. It was embarked at Southampton for Havre in March and No. 2 was transferred to Shorncliffe, and Major (afterwards Lieut.-Colonel) J. H. Wilson was placed in command. For three years Shorncliffe was the regimental depot, as well as the training and reinforcing base for the overseas Canadian Army Veterinary Corps. Under Major Wilson's direction a vast improvement was made in conditions for the horses. From being a quagmire of mud, in which horses were sometimes mired, the hospital surroundings became well ordered and attractive. Mud holes were filled in, walks laid out, lawns sowed, and flowers planted. But such work was only incidental to the more serious duties of the corps.

From the first the greater number of the officers who commanded mounted units were inexperienced in the care and handling of horses. In a test made by Captain Best, it was found that of 142 officers and men who presented themselves for one training course, three were good horsemen, forty had handled horses, and the remainder had no experience with them. Further, competent first-aid sergeants and shoeing-smiths were urgently needed. To remedy these defects a school was opened at Shorncliffe under the direction of veterinary officers. At this school officers from mounted units and men wishing to qualify for the veterinary services were given courses of from three to six weeks' duration along lines that fitted them better for their respective duties. This school and one established subsequently at Havre amply justified their existence. Over seven hundred first-aid sergeants received their training at Shorncliffe, and seventy officers and six hundred other ranks at Havre, during the war. As the war proceeded, the need for competent farriers became more and more apparent. Over 23,500 horses were used by the Cana-

dians in France and 2,500 in the British Isles. Before the end of the war more than three hundred farriers had to be kept constantly on duty. To meet this need an officer and fourteen farrier N.C.O.'s at Shorncliffe were detailed to train men for this important work.

At first remounts for the Canadian forces were brought direct from Canada, but this was soon found to be an expensive and impractical method. From the beginning of 1916, therefore, all remounts were obtained through the British Government, which, with its far-reaching organization, was able to purchase and distribute to better advantage. The annual cost of the horses required for each Canadian division was approximately $27,000.

No serious outbreaks of disease occurred amongst the horses while in England. Most of them needed special care until they became acclimatized and the greater number of cases of sickness occurred during that time. There were a few minor outbreaks of mange, but these were kept in check by prompt treatment. The hard English roads were responsible for foot troubles and particular attention had to be paid to shoeing.

On the 9th of February, 1915, the first veterinary units to be sent to France embarked at Avonmouth. Favourable conditions made it possible to cross the English Channel with but a single casualty amongst the horses. Lieut.-Colonel A. B. Cutcliffe was given acting command, an appointment that was confirmed early in March.

The personnel of No. 1 Veterinary Hospital, consisting of six officers and 196 other ranks, reached Havre on the 4th of April, 1915. An old brick-yard near Havre was chosen as the site of the hospital. The spring rains had converted the place into a bog, but after much hard labour it was drained, comfortable stables were erected on concrete foundations, and the grounds conveniently laid out and levelled. Dressing

sheds with concrete floors; operating rooms well supplied with operating utensils, hot and cold water and electricity; a pharmacy; a laboratory for the manufacture of vaccines; fumigators and other necessary equipment were fully provided for. By 1917 it was acknowledged by the Imperial authorities to be the best equipped and most attractive veterinary hospital in France. The material required in building the stables was furnished by the Society for the Prevention of Cruelty to Animals, a British organization that received official recognition and permission to carry on its work in the areas occupied by British troops. Somewhat ironically, perhaps, this society furnished the material for the erection of a Y.M.C.A. hut at Havre. Although retaining its Canadian name and staffed by Canadian personnel, this hospital was maintained as an Imperial institution throughout the war. Sick and injured horses from each of the Allied armies were admitted and treated. In all, 33,921 horses were admitted during the war, of which 28,425 were discharged to the remount depots for further service and 1,870 passed on to convalescent depots.

In addition to the base hospitals at Shorncliffe and Havre, advanced field hospitals were maintained close to the fighting lines. These performed functions similar to those of the Casualty Clearing Stations established by the Army Medical Services. Horses were given first aid in them; but if the cases required extended treatment, they were evacuated to the base hospital. For a time the lack of ambulances for transporting wounded horses made this work difficult and sometimes impossible, but later these ambulances were provided. At the advanced field hospitals, stables were erected whenever possible for the accommodation of sick or wounded animals. Dipping vats were constructed for treating animals that had contracted skin diseases. These vats were used extensively as a preventive measure also, the animals being immersed

in a solution of calcium sulphide, a medicated bath composed of lime, sulphur, and water, the mixture being boiled for several hours. This method was an innovation suggested by Lieutenant Perry, a Canadian in the Imperial Veterinary Service. Many of the British officers opposed the adoption of it, claiming that the old method of using sulphur ointments should be followed. The success of the dipping-vat method, however, led to its adoption in all the Allied armies.

Careful attention was paid to the quality and quantity of the feed and water provided for the horses. But, while the veterinary officers were unfailing in their efforts to obtain sufficient feed, they were careful to try to prevent waste. During the early periods of the war waste of feed had been too common, particularly when the animals were fed on the ground. The invention of hay-nets, holding about a bushel of hay each, and which were attached to the breastline to which the horses were tied, was an improvement and much less hay was trampled into the mud. But the nets were frequently torn down by restive horses and both hay and nets stamped upon. An effective expedient, suggested by Lieut.-Colonel Tamblyn, was tried to overcome this, which deserves mention none the less because of its simplicity. It consisted in placing another rope in front of the horses about six feet from the ground. To this the hay-nets were attached. This simple arrangement resulted in saving large quantities of hay, a most important factor when fodder was scarce and transport of all kinds was taxed almost to the limit.

Another matter that received a good deal of attention from the veterinary service was the clipping of the horses. At first, this seemed to be a matter of simple routine, but experience showed that unless it was done at the proper time it resulted in more harm than good. Many commanding officers of units early in the war ordered the clipping of the horses at any

season that might suit their convenience. Frequently, it was done during the winter months, with the result that numbers of the horses contracted colds, pneumonia, and kindred troubles. It was not until the summer of 1917, however, that clipping was forbidden after November 15th.

The Canadian Veterinary Corps paid special attention to dentistry for horses. It was found that about seventy-five per cent. of the horses required dental treatment, which did much to prevent colic and catarrhal troubles.

In addition to the regular duties of the veterinary services, the veterinary officers undertook the treatment of any of the animals belonging to the French or Belgian peasants that required medical or surgical treatment. This kindly arrangement, assumed voluntarily and without thought of recompense, did much to foster friendly relations between the Canadian forces and the people whose lands they occupied.

Each successive Canadian division carried the requisite veterinary establishment, all drawing almost entirely for personnel and equipment on the base camps at Shorncliffe and Havre. Throughout the period of trench warfare the mobile veterinary sections followed the units to which they were attached from Ypres to the Somme, from the Somme to Vimy, Passchendaele, and finally back to the Arras sector. They knew but little of the thrill of battle, but they saw and knew much of the havoc and suffering and waste that these conflicts entailed, particularly as they affected "man's noblest friend."

In the treks from one front to another it was frequently necessary to leave sick animals behind. Generally, arrangements were made with the mayors of towns to have peasants take care of them. The officials at headquarters were notified of the disposition of such animals and the peasants were given an allowance when they were returned to the army.

The Somme campaign, during the latter part of 1916, placed a serious strain on the veterinary services. The tremendous energy required in such a movement demanded the unfailing support of an exceedingly mobile transport system. The excessive wastage of animals made it very difficult to maintain the efficiency of this branch of the service. Moreover, the Canadians were engaged in that eventful action almost entirely during the rainy autumn season, and practically all of the horse-lines were turned into bogs of mud a foot or more deep. Most of them were on the shell-torn areas east of Albert. Building material for stables was all but unobtainable, and even if it had been obtainable the men had too much to do to permit of the erection of even temporary shelters. Thus the animals had to remain in the open. Many of them were kept at work for eighteen or twenty hours a day, drawing ammunition and supplies to the forward areas, over roads which were swept at frequent intervals by enemy shell-fire. During the few hours each day that they were not working, the horses stood knee-deep in mud, while the cold autumn rains beat down on them pitilessly. Very little grooming or clipping was done, for the men were too nearly exhausted after long nerve-racking hours spent in the saddle to perform such necessary tasks. As a result of this exposure, the animals grew unusually heavy coats of hair, which became literally filled with chalky mud. It was inevitable that many of them should contract skin diseases, as well as complaints due to excessive exposure. Besides, the number of animals wounded was larger than the Canadian forces had hitherto experienced, so that the veterinary services, including the Remount Department, were severely taxed during, and after, the mighty struggles on the Somme front.

An interesting discovery was made during the treks to and from the Somme front which indicated

how careful observation may prevent serious injuries to horses. Many animals were getting nails in their feet, which usually incapacitated them for days. At first this was attributed to foul play, but it was observed that fully eighty per cent. of these injuries were in the hind feet. Further, it was observed that the cooks fired their field kitchens with broken boxes from which the nails had not been removed and when moving on left the ashes and nails from the ash pits on the road. The front feet of the horses tipped the nails on end so that the hind feet became impaled. Needless to say, the cooks were instructed to find other means of disposing of their kitchen ashes.

It was during the Somme fighting, too, that gas masks for horses were first used. Many men lost their lives, however, while adjusting the horses' masks before putting on their own, so that they never came into general use. But experience showed that horses were less susceptible than men to the effects of gas and mules still less so.

The Vimy front proved to be a tremendous strain on horses and, consequently, on the Veterinary Corps. The transport services, especially, were taxed to the utmost and scores of horses gave out under the strain. The supply of remounts was not always sufficient and this added to the difficulty of keeping the available animals in condition to remain in harness. Practically every available horse, except those used by officers, was made use of in transporting either guns or supplies. The losses at Passchendaele accentuated this condition, so that the comparative quiet on the Arras front early in 1918 proved more than welcome. It was but the prelude to yet another strain, for the period of open warfare was drawing near. If mobility is essential in "a war of positions," it is even more necessary in "a war of movement." The Germans opened their last great offensive in March, 1918. As it happened, it affected the Canadians only indirectly

at first, for the blow was struck well to the right of their position. The phenomenal success of the German movement in its initial stages soon made it evident that there was a danger of the right flank of the Canadians becoming exposed and that the enemy might attempt to roll up the line. It was necessary, therefore, for every unit in the Canadian Corps to remain prepared to repel an attack at a moment's notice. The veterinary units kept their wagons loaded and their horses harnessed for days, ready for any move they might be required to make. All cases of sickness or injury amongst the horses were evacuated at once to the base veterinary hospital. In spite of the unusual difficulties in the way of the veterinary services performing their usual functions, a reduction was made in the veterinary personnel. By the end of June the danger of a flank attack became much less acute and some of the sections were given short rests.

Toward the end of July the Canadians moved farther south to the sector in front of Amiens. This move, which was carried out at night, brought them in touch with the zone over which the German forces had recently swept. From then on, it was realized that a mistake had been made in reducing the personnel, for it became increasingly difficult for a time to evacuate animals at short notice. The difficulties thus created in the evacuation of animals and in the handling of remounts were somewhat obviated by advancing the rear veterinary stations, but at times local obstacles, such as shortage in the supply of water, caused much inconvenience. The month of August brought many changes in position, all of which were made at night. Although it was necessary at times to draw on the infantry for assistance, the veterinary services functioned well and were of material assistance in maintaining the mobility of the Canadian Corps during the memorable advance from Amiens to Mons. The spirit of all the troops was probably

never higher. The march from Mons to the Rhine occupied about a month and offered no difficulties of any magnitude to the veterinary services. In January, 1919, the several units turned their faces toward Canada and home.

From the nature of their duties there was little that was spectacular about the work of the veterinary services. Only two veterinary officers and one sergeant lost their lives through shell-fire during the war, although veterinary units were at times subjected to long-range shell-fire and to bombing raids. The annual gross wastage of horses, including evacuations, was a trifle over twenty-six per cent., while the annual dead wastage was 9.56 per cent. These figures serve to show something of the value of the services performed by the Veterinary Corps, for, of the wounded or diseased animals, nearly two-thirds were saved and returned to duty. Besides, no one can estimate the losses that were avoided by the adoption of methods and practices that prevented outbreaks of disease. There were doubtless many mistakes and misunderstandings, and there probably were minor cases of inefficiency; but in creating such a working organization under the stress of war conditions, these were in some degree pardonable. That the corps made good was shown by the circular letter issued at the end of the war by Major-General Moore, Director of Veterinary Services in the Imperial army. General Moore said in part: —

" On the demobilization of the Expeditionary Force in France, I desire to express my appreciation of the services rendered by all officers and other ranks of the Canadian Army Veterinary Corps, and to tender to one and all my sincerest thanks for all that they have done throughout the war. . . . The Canadian Army Veterinary Service has reached a high degree of efficiency, which not only reflects the greatest credit on all concerned, but is one which the Dominion Over-

seas Forces cannot fail to be justly proud of. Contagious animal disease, always troublesome in war, on the whole has been satisfactorily kept in subjection, sick animals have been well cared for and treatment scientifically carried out. . . . ”

APPENDIX V

THE CANADIAN ARMY DENTAL CORPS

ALL nations recognize the prime importance of physical fitness in men who are to engage in military operations. No matter how efficient may be the weapons, or the countless other factors, unless the soldiers who engage in war are strong and healthy, their chances of success cannot be great; consequently, professional armies have always been composed of physically fit men, and any who suffered from minor defects have had these corrected as far as possible. It is not surprising, therefore, that at the outbreak of war in 1914, the Canadian military authorities set very high standards for recruits. Physical fitness was carefully defined and the requirements rigidly enforced. For a time the number of men who volunteered for service greatly exceeded the demand and the recruiting officers felt no compunction in refusing to accept men who did not reach the standards fixed. But, as it became clearer that the war was to be a long one and that the original offer of a division by the Canadian Government would be quite inadequate, the need for modifying the restrictions became apparent. Naturally, such a slackening of the physical restrictions threw a greater burden on the Medical Services. If the men who, of necessity, were accepted for military duties were not physically sound, it was the duty of the Army Medical Corps to endeavour to make them so.

Much to the astonishment of most Canadians, a very considerable percentage of the men who offered their services during the first few months of the war were

not accepted because of dental defects. The Canadian dental associations were quick to grasp the situation. Early in 1915 they approached the Minister of Militia, Major-General (afterwards Lieut.-General) Sir Sam Hughes, with a view to the establishment of a dental corps to take over and enlarge the dental work that had hitherto been carried on by the Medical Service. The higher status and efficiency of the dental profession in Canada as compared with that of European countries, together with the fact that the dental associations were well organized, made it possible for them to be of direct and immediate value. The Minister viewed their suggestions favourably and on April 2nd, 1915, appointed Dr. J. A. Armstrong, of Ottawa, chief of the new unit with the rank of lieutenant-colonel. This was the inauguration of the first dental corps that ever existed in any army. With the exception of New Zealand, no other country followed the example of Canada in this respect during the war, although the British authorities made a careful study of Canadian methods late in 1917, with a view to adapting them to the forces in Egypt. Nevertheless, the new unit amply justified its existence and Canada may well find satisfaction in having originated so worthy a precedent.

The fact that the establishment of such a corps was an innovation added to the difficulties of organization. In the first place, it is always difficult to change military methods that have the sanction of tradition. Further, as it was a pioneer service, it was not possible to draw on the experience of other countries. Nor were any statistics available to show how large a personnel would be required, or the extent and character of the equipment that could be used most effectively in keeping a citizen army dentally fit. Besides, it was necessary to develop a system of accounting that would show in convenient form not only the details of all supplies, but also furnish a com-

plete record of the dental condition of every member of the Canadian Corps throughout his period of service. It required considerable tact to define the duties of the new unit, so as not to encroach on the prerogatives of the other services, particularly the medical. The latter was naturally of much value in determining the character and organization of the personnel of the dental units and as far as possible efforts were made to co-operate with it.

A militia order of the 12th of May, 1915, authorized the organization of a dental corps, and a few days later recruiting was commenced in each of the military districts throughout Canada. Instead of holding merely honorary rank, as was the case in the Medical Corps, dental officers were appointed with the rank of lieutenant, with allowances and pensions of captain's rank. Graduates in dental surgery of one year's standing were given the full rank of captain, which was also granted to lieutenants as soon as they had completed one year of service, if duly recommended.

The first draft, which sailed for England on the 23rd of June, under the charge of Lieut.-Colonel (afterwards Colonel) Armstrong,[1] consisted of twenty-seven officers, all of whom were graduate dental surgeons, thirty-five non-commissioned officers, who were mainly dental mechanics, and forty privates. These were attached temporarily to the 2nd Canadian Division at Shorncliffe.

After the departure of Lieut.-Colonel Armstrong, the work of organization proceeded in Canada under Captain (afterwards Major) A. A. Smith. Later, Captain (afterwards Colonel) W. B. Clayton, after service in England and France, returned to Canada and assumed command. Recruiting was carried on steadily and dental clinics were set up in each of the military districts. From three hundred to five hun-

[1] During his period of service, Colonel Armstrong was granted two decorations, namely, C.B.E. and C.M.G.

dred dentists, dental mechanics, and orderlies were employed in Canada during the last three years of the war, and before demobilization was completed more than eight hundred were required to cope with the work. A dental store was established and arrangements were made for the purchase and distribution of supplies. Careful attention was given to the designing of clinical equipment for use in the field. After much experiment, a complete field equipment, including a chair and an engine, was evolved, which could be placed in three boxes that could be loaded by one man, if necessary, and could be set up, or taken down, in ten minutes. Dental history sheets were prepared, which resembled in purpose, if not in form, those used by the Medical Corps. It required much argument to persuade the military authorities of the necessity for these sheets, but they were undoubtedly a considerable factor in providing efficient service and were the means of saving much expense for materials used in dental work.

It was early decided that dental treatment should be free to all enlisted men. Soldiers requiring gold or platinum work, however, had the original cost of these materials used deducted from their pay.

After their arrival in England, the distribution of dental personnel was proceeded with. Dental officers, mechanics, and orderlies were attached as soon as possible to every Canadian hospital in England, to artillery and infantry Brigade Headquarters, and to Divisional Headquarters. Six dental officers also accompanied hospital units to Salonika and Egypt. Officers were detailed to carry on research work with a view to ascertaining the best means of treating pyorrhœa and trench mouth (infectious stomatitis), until that time practically an unknown disease. Careful investigation was also made of the treatment of wounded jaws and facial disfigurements. Very complete equipment was obtained for this work, including

X-ray and other electrical and mechanical devices, in spite of the difficulties of obtaining it owing to the heavy demand for munitions. The results of this work proved of great value in treating men who were exposed to trench conditions. Thus at one time as many as ten thousand cases of trench mouth demanded treatment. The painstaking work of the oral pathologists made it possible to prevent a serious epidemic and to bring the disease under control. At least equally remarkable work was done in devising means for overcoming jaw injuries. The dental clinic at Orpington Hospital specialized in this work, and in co-operation with the medical authorities constructed jaws and portions of jaws for numbers of men who would otherwise have been terribly disfigured and largely incapacitated for life.

Until January, 1917, when it was removed to London, the Headquarters of the Canadian Dental Service in England remained at Shorncliffe. The detail of organization at Headquarters, which of course had general supervision of dental work in all military areas, consisted of twenty-six men, including the Director of Dental Services, the Deputy Director, clerks, and storemen. The Dental Service in each military area was in charge of an assistant director, who had under him two senior dental officers and the necessary additional personnel to perform the dental operations required. Supplies were obtained through the Purchasing Board of the Quartermaster-General's Department. Dental clinics were provided as nearly as possible on a basis of one dental officer, one dental mechanic, and one orderly for every five hundred soldiers and one of each of the foregoing ranks for every 150 men in hospital. Additional drafts from Canada during the succeeding two years brought the corps overseas to a strength of over two hundred officers and five hundred other ranks. In addition to these, the dental officers who were attached to the

Medical Services at the time of the formation of the new unit were in all cases transferred to the Dental Corps overseas.

During the time that Canadian troops were undergoing training in England, each individual was examined as to his dental condition and every effort made to make him dentally fit, prior to his being drafted for France. While this involved heavy and intensive work, it was rendered the more necessary because of the difficulties in the way of having it done in France. The first members of the new corps arrived at Boulogne with the 2nd Canadian Division Headquarters in September, 1915. Although the Canadian Dental Service was given official recognition in both Canada and England, its status was — and remained — distinctly different in France. With a single exception, every officer on the strength of the Canadian Dental Corps who went to France was attached to the Canadian Army Medical Corps. The exception made was in the case of Captain William Stuart, quartermaster in charge of dental stores, who was attached to the staff of the Deputy Director of Medical Services of the Imperial army.

A dental clinic was opened at Harfleur, near Havre, in a portion of a building already occupied by British dental officers. The staff consisted at first of three officers and six dental mechanics, which was soon afterwards increased threefold. In February, 1916, the work of the Imperials and Canadians at this clinic was co-ordinated under the command of Captain (afterwards Major) Greene, of Ottawa. This arrangement continued until the following November, when the Canadian Base was moved to Etaples, where the clinic was placed in charge of Captain Donald, an Imperial officer. It is worthy of note that during the time Captain Greene was in command, the proportion of Imperials to Canadians treated at this clinic was roughly seven to one.

Canadian Official Photograph

A CANADIAN ARMY DENTIST AT WORK

Early in October, 1915, the Canadian Government presented two hospitals with a complete personnel, including dentists, dental mechanics, and orderlies, to the French army. The first of these, No. 6, was stationed at Troyes, on the Seine, and the second, No. 8, at St. Cloud, near Paris. All equipment for these hospitals was furnished by the Canadians throughout the war.

On the 24th of October, No. 1 Dental Store was opened at Havre. Originally, it supplied only Canadian dental officers in France, including those at the two dental clinics and laboratories in connection with the hospitals at Troyes and St. Cloud. But, for reasons of economy, it was found desirable to enlarge its functions and it was required to furnish dental supplies to most of the Imperial hospitals, to British hospitals having American personnel, to Australian and American dental surgeons in the Havre area, and to the German dentists in prison camps. Such an increase of duties added much to the burden of the staff of eight Canadians in the store. At times, the materials in stock reached a value of £15,000. Throughout the war, and until the store was finally closed in July, 1919, the staff from time to time received hearty commendation from the official auditors and the Higher Army Command.

Through an unfortunate arrangement early in the war, all medical and dental supplies were shipped from Southampton, through Havre, to Rouen, where they were transferred to French railways and returned to Havre. Owing to the congested conditions of traffic on these railways, this roundabout method of bringing in supplies frequently resulted in delays of from two to three months. To overcome this, the Director of Canadian Dental Services in England and the officer in charge of the Base Dental Store at Havre prevailed on the authorities to change their rulings, so that supplies would come from Southampton to

Havre direct. Arrangements were also made with contractors to deliver many of the supplies required in parcels of eleven pounds, or less, which could be sent out to officers stationed at field hospitals, casualty clearing stations, field ambulances, and field laboratories by parcel post. The postal authorities co-operated willingly in providing this service and throughout the war performed their part with remarkable efficiency. Although thousands of such parcels were delivered, many of them to units that were moved at frequent intervals, less than a dozen were known to have gone astray. In addition to this method other supplies were despatched from the Base stores once a week by motor cycles carrying materials that could not be sent by parcel post. By these means not more than three days were required after the indents were received to supply any officer in the field. When it is remembered that several tons of plaster of Paris alone was delivered from the Base stores at Etaples during the last year of the war, the magnitude of this work becomes apparent.

The field operations of the Canadian dental officers in France were carried out at the fourteen field ambulances, the dozen casualty clearing stations, and the advanced dressing stations. In addition, a Canadian Corps clinic and dental laboratory, in charge of Colonel Neilly, was provided to carry out the laboratory work required by all of these officers. The latter moved into and out of the fighting lines with the units to which they were attached and at times carried out their duties in dug-outs which were under shell-fire. These frequent movements, in addition to changes of front, naturally added very considerably to the difficulties encountered by the field laboratory and the Base stores in delivering supplies. About fifty dental officers were kept on duty in France during the last three years of the war, but, owing to transfers and exchanges of duties, 150 graduate Canadian dentists

in all served in France. Slightly more than 2,500,000 dental operations were performed by Canadian army dentists in England and France during the war. Although trench mouth was kept under control after 1916, there were 8,546 cases in 1918 which required a total of 49,449 treatments.

In the light of modern knowledge it is perhaps justifiable to paraphrase Napoleon's famous epigram, "an army fights on its stomach," for in a very real sense an army fights with its teeth. It is universally recognized amongst civilized peoples that without good teeth and good digestion, it is difficult, if not impossible, to preserve good health, a factor of the very first importance in military conflicts. In no other war in history was disease so effectively combated as in the Great World War in Europe. It is, therefore, surely not assuming too much to claim that the vast volume of expert work performed by Canadian dentists overseas had a direct bearing in deciding the issue. Moreover it was none the less praiseworthy because it was performed quietly and without ostentation, with little, or none, of the glamour that attaches to actual conflict.

The signing of the Armistice did not bring a cessation of activity to the army dentists. Their duty in helping to prepare a citizen army for war merely changed into the no less important and exacting one of preparing soldier citizens for peace. While the tide of men receded from the Rhine to England and then to Canada, the Dental Corps kept up their work, for every Canadian soldier could, and invariably did, demand that he should be returned to civil life, when possible, as dentally fit as when he enlisted. In addition to the armies that crossed the German border, there were many thousands of sick and wounded who were in, or who had passed through, hospitals in both England and Canada. These, too, were given thorough dental treatment prior to their discharge from the

army. It was with these that the excellent clinics established by Colonel Clayton in each of the military districts in Canada performed one of their most signal services. With the return of the troops during the first half of 1919, the entire dental work became centred in Canada. Sixty-two per cent. of the men who returned between October 1st, 1918, and November 1st, 1919, were given dental treatment prior to their discharge. In all, 2,104,315 operations were performed by the Dental Corps in Canada. Many men who had a jaw, or portions of a jaw, shot away were given plastic surgical treatment or were provided with artificial parts. In almost all cases these gave the men a fairly normal appearance and made it possible for them to speak, eat, and smoke nearly as well as they did before being wounded. Who can measure the importance of this service to the future well-being of the Canadians who helped to hold the line in France and Flanders for four long years?

APPENDIX VI

THE ROYAL MILITARY COLLEGE OF CANADA[1]

WHEN the British regulars were removed from Canada in 1870 and 1871, leaving only small garrisons at the naval bases of Halifax and Esquimalt, the country was deprived of its only source of military education. A prompt effort was made to supply the deficiency by means of training schools in connection with the Permanent Force, which, by an Amendment to the Militia Act, came into being in 1871. But the instruction given in the schools was lamentably weak, and no provision was made for the training of officers for higher commands. There was a distinct falling off in the efficiency of the militia corps, and the contrast between the work of the new soldiers and those trained by the regular troops was most marked. In 1874 the Imperial authorities and the British officers serving in Canada called the attention of the Dominion Government to the weaknesses in the militia system and to the need of higher military training. As a result, an agitation began for the establishment of a military college, and after much debate in Parliament and discussion in the Press, the Government, under the leadership of Alexander Mackenzie, decided by Act of Parliament in 1876 to establish a military college: "For the purpose of imparting a complete education in all branches of military tactics, fortification, engineering, and general scientific knowledge in subjects connected with, and necessary for, a thorough knowledge in the mili-

[1] See Vol. I, p. 263.

tary profession and for qualifying officers for command and for staff appointments."

The site chosen for the college — named in 1878, by the gracious consent of Her Majesty Queen Victoria, the Royal Military College of Canada — was on the peninsula fronting the city of Kingston, Ontario. On the north-west side the Cataraqui river separates the college grounds from the city, and on the south-east side a navigable inlet from the river St. Lawrence separates the grounds from the Government reserve and Fort Henry. On the southern extremity of the peninsula in front of the college is Fort Frederick. Here the college was opened on June 1st, 1876, with eighteen Gentlemen Cadets [1] in attendance. The selection of the site of the college was admirable. Kingston was the oldest military post in the Dominion west of Montreal, and had historical associations carrying the mind back to the days of Frontenac and La Salle. As Fort Frontenac it had played an important part in the struggle between France and the Iroquois, and in the War of the Conquest that ended French rule in Canada. As Kingston it came into being in 1783, and was one of the points along the St. Lawrence at which the United Empire Loyalists settled. During the War of 1812 it had been a busy military and naval centre, and so strong was it that, though the tide of war ebbed and flowed east and west of it, it was never in danger, and as a military base played an essential part in beating back the American invaders.

The college grounds form two enclosures. In one (about thirty-four acres) are situated the cadet barrack and educational and mess buildings, gymnasium, drill parades, recreation grounds, etc.; in the other (about thirty-two acres), the military engineering grounds, staff quarters, and non-commissioned officers' and servants' quarters, stables, etc.

[1] This is the official designation of the students. For convenience they are hereinafter called "cadets."

One of the chief reasons that influenced the Government in selecting Kingston as the point at which to establish this military institution was that it was in possession of the site of the old Naval Yard, established in 1812, on which there were several buildings immediately available for the needs of the college. The three-story structure, in its interior arrangements, was originally built like a three-decker and known as the "Stone Frigate," and had been used for training purposes in 1812; this was taken over and made to supply the general needs of the college, serving as a barrack and educational building, officers' and professors' rooms, and laboratories.

In looking about for a model the military authorities selected West Point in the United States, which served the purposes of a staff college and a college for the training of cavalry, artillery, engineers, and infantry. An institution on these lines was considered the most desirable and economical for a country like Canada with limited resources. When the college opened its doors the period of instruction was fixed at four years. This, however, was reduced to three in 1897.

The Earl of Dufferin, Governor-General of Canada at the time of the founding of the college, took a personal interest in the institution, and it was largely due to him that the Government secured the services of Major (afterwards Lieut.-General) E. V. O. Hewett, Royal Engineers, as first commandant. The choice of this officer was in every way a fortunate one. He was both an experienced soldier and an experienced educator. He had received his education at Cheltenham and at the Royal Military College, Woolwich, England. His father had been a distinguished soldier, fighting in many parts of the Empire, and in 1814 had led the "Forlorn Hope" in an attack on Oswego. The son obtained his commission in 1854, and as an engineer was for some years engaged in designing and con-

structing the defences of Dover and Portsmouth, and for a time employed as an instructor at Woolwich. He also saw service abroad, accompanying his regiment to the West Indies and South America. When the " Trent Affair " raised a war cloud between Britain and the United States, some fourteen thousand troops were hurried to the British North American colonies. Hewett came with these as a captain in the 18th Company of the Royal Engineers, and until November, 1867, was stationed in Canada West (Ontario) and in Halifax. The American Civil War was raging during the early part of his sojourn in Canada and he was for some time employed as an observer with the opposing armies on behalf of the British Government. He was present at the Battles of Antietam and Perryville, and he saw also the operations in the Wilderness. On one occasion Captain Hewett had his horse shot under him, and was for a short time, until identified, prisoner to the cavalry of the Confederate general, John Morgan. In 1867 he returned to England and took up work on the construction of the Portsmouth defences. While at Portsmouth he received his majority and as Major Hewett he was in 1876 appointed first commandant of the Royal Military College of Canada. The organization of the new college was no easy matter, but Major Hewett came to his task with over twenty years' experience in the army as an expert engineer, and had had, too, as we have seen, experience as a teacher. He had spent six years in Canada, and this experience was to stand him in good stead in handling the politicians who controlled the institution and the lads who came under his authority, lads somewhat different from those to be found in English schools. He established the college on a firm basis, shaped its character, and framed its motto — " TRUTH, DUTY, VALOUR."

In his work of organization the Commandant had

the assistance of an able staff, consisting of Captain J. Bramley Ridout, Captain of Cadets; Captain E. Kensington, Professor of Mathematics and Artillery; Captain G. W. Hawkins, Professor of Fortification; and the Rev. George Ferguson, Professor of German. Hewett and his staff were greatly helped in their work by the character of the first class of students, the "Old Eighteen," as they are still affectionately called. They were lads of manly character, and their spirit and conduct established traditions for the institution that have been far-reaching in their influence. The first cadets joined the college on June 1st, 1876; fourteen of them were from Ontario, three from New Brunswick, and one from Quebec. The following are their regimental numbers and names:—

1. Alfred George Godfrey Würtele.
2. Henry Cortlandt Freer
3. Henry Ellison Wise.
4. William Mahlon Davis.
5. Thomas Lawrence Reed.
6. Septimus Julius Augustus Denison.
7. Lukin Homfray Irving.
8. Frederick Davis.
9. Charles Albert DesBrisay.
10. Victor Brereton Rivers.
11. James Spelman.
12. Charles Oliver Fairbank.
13. Aylesworth Bowen Perry.
14. John Bray Cochrane.
15. Francis Joseph Dixon.
16. George Edwin Perley.
17. Harold Waldruf Keefer.
18. Duncan MacPherson.

For admission to the college the candidate must be a British subject residing in Canada. An exception is made in the case of the son of a graduate, who is eligible for admission as long as his father is employed on Government service anywhere within the Empire. Admission is granted by competitive examination to candidates between the ages of sixteen and twenty. There are from twenty-four to thirty

vacancies each year, the intention being to maintain the attendance at the college at from ninety to one hundred cadets. From the time that a cadet is admitted he is an enlisted soldier and is subject to the Army Act, the King's Regulations, the Militia Act, and such other rules and regulations as apply to His Majesty's troops. For the time being the State takes the place of his parents, who have in law no authority over him.

The cadets are arranged in four classes, at the head of each of which is a sergeant-major selected from among themselves. At the head of these four sergeant-majors is the battalion sergeant-major; also a senior cadet, who occupies the position of intermediary between the cadets and the Staff. The office of Captain of Cadets, established in 1876, was abolished in 1880, and the duties appertaining to this office have since been performed by the officer designated as the Staff Adjutant, and by the captains of the companies of cadets. The fees for the entire course amount to about $800; this amount covers the cost of uniform and educational material, and, for an institution possessing such educational advantages, can only be regarded as nominal. The average annual cost of the college to the country is a trifle less than $150,000 — a small sum, when the importance and high quality of the work done is considered.

The curriculum is divided into "Obligatory" and "Voluntary" courses. Every graduate must qualify in Infantry, Artillery, and Engineering drills, Equitation, Gymnastics, Swordsmanship and Swimming, Mathematics and Mechanics, Practical Geometry, Military Engineering, Engineering Drawing, Hydraulic Engineering, Design and Execution of Structures, Military Administration, Law, Strategy and Tactics, Surveying and Military Topography, Reconnaissance, French, Physics, Geology, etc. The courses are so arranged that the graduate is fitted for work, not only as a mili-

tary expert but as an electrical engineer, a civil engineer, or a land surveyor. It is not claiming too much to say that few institutions in the Dominion give as high a technical training and none a superior.

It is sometimes asserted that the curriculum of the college is superior to that of Woolwich or Sandhurst. The military education given is undoubtedly of a higher standard and more thorough than at either of these institutions, but in the Royal Military College of Canada the education is intended to be more or less final in its nature, whereas at Woolwich and Sandhurst the instruction imparted is but preliminary to future continuous instruction and training in regiments, the Staff College, the School of Musketry, the Artillery College, etc.

In 1883 the designation of the official document attesting to graduation was altered from 1st and 2nd Class "Certificate of Graduation" to "Diploma of Graduation with Honours," and "Diploma of Graduation." The word "Diploma" is more fitting as regards the course of study, and serves to distinguish the graduates from the holders of "Drill" certificates issued to all ranks by the Royal Schools of Artillery and Infantry. The graduates have a recognized scholastic standing, and are entitled to go up for examination as Dominion Land Surveyors, or Provincial Land Surveyors in Ontario and Quebec, after one year's service in the field instead of three as in other cases. In Ontario and the North-West Provinces the Law Societies recognize graduates on the same footing as graduates from the universities. The College of Physicians and Surgeons for Ontario similarly exempts them from matriculation examination for the study of medicine. A graduate can become a member of the Dominion Association of Chartered Accountants if he has served under articles for three years, in place of five.

The needs of the college soon outgrew the buildings

that answered the purposes of its opening years. Since the " Stone Frigate " was fitted up for educational purposes, there have been erected on the college grounds an educational building, a hospital, a gymnasium (a building formerly used as a blacksmith shop by the Imperial Government at first served this purpose), Staff Adjutant's quarters, a new dormitory building, gun shed, model shed, stables, etc. All this cost money, and the average Canadian who gave any thought to the matter considered the expenditure entirely out of proportion to the results. In the decade or so preceding 1896 the institution had been the subject of violent attack in Parliament and by a section of the Press. It was, indeed, a political football. But it was well worth the cost.

The majority of the graduates of the college do not take up soldiering as a profession. Seven commissions in the Imperial service are offered annually; viz., one each in the Engineers, Royal Artillery, Cavalry, Infantry, and Indian Army, and two in the Army Service Corps. Of these the commissions in the Royal Engineers, Royal Artillery, and Indian Army are as a rule taken, but those in the other branches are not always accepted. The commissions in the Canadian Permanent Force are of course open to the graduates of the college, and the Canadian Artillery and Engineers are officered almost entirely by ex-cadets. When there has been any call for their services, as in the case of the North-West Rebellion, the South African War, and the Great World War, the men of the Royal Military College have promptly reported for duty. In the early days of the college the only military obligation on any ex-cadet was to join the Reserve of Officers, but within recent years it has been laid down that ex-cadets not entering the Regular Forces, Imperial or Permanent, shall be gazetted to the Active Militia for three years. In addition to military employment the Canadian Government offers

annually to graduates a certain number of appointments in the public service of the Dominion. But the graduates of the R.M.C. are employed in a variety of ways. They are to be found in the Imperial Army, the Canadian Permanent Force, and the North-West Mounted Police, in civil engineering, business, law, medicine, farming, and land surveying. In their ranks are several chartered accountants and architects, and some have entered the Church.

While the college has been of great benefit to the country, it has been hampered by being under political control, and the fullest use has not been made of its graduates for national service. It is true that the Militia Regulations provide that permanent militia commissions will be given solely to the graduates of the Royal Military College, but for the first twenty years of the life of the college the Militia Department persistently ignored its own order and appointed officers to the Permanent Force without qualification or fitness. Political interference and favouritism have forced into private life many of its ablest graduates. But the Royal Military College of Canada is one of the greatest assets the Dominion possesses. In 1895, when the attacks on the college were particularly virulent, Major C. B. Mayne, who had spent seven of the best years of his life as a professor within its walls, wrote a strong defence of it. By its means, he pointed out, "there was established a latent force, the necessity of the Canadian military system," a standing army being out of the question. According to Major Mayne the physical training could not be equalled anywhere else in Canada, and no institution could point to a higher moral standard. "Honour and its subdivisions of truth, duty, and valour are ever upheld to the cadets." In reckoning up its value it must, he added, be recognized that its graduates in civil life are necessarily highly important elements in Canada's defensive power.

Ever since the first graduates left the college some of their number have been engaged in the wars, campaigns, and expeditions which have taken place in the Empire. During the North-West Rebellion thirty graduates and ex-cadets were on service with the Field Force west of Winnipeg, and seven on garrison duty east of that city. Four of the officers in the field were wounded. Two served on the staff of Major-General Sir F. D. Middleton, commanding the Militia, as A.D.C.'s, one with Major-General Laurie, commanding base and lines of communication, and one with Major-General Strange, commanding the Alberta Field Force. This was an excellent showing in the light of the fact that only eighty-eight graduates had passed out of the college in 1885 and of these twenty-four were in the Imperial Army and elsewhere abroad.

On the outbreak of the Rebellion the cadets (as a body) offered themselves for active service in the field. This offer was forwarded to Headquarters by the Commandant, and, although the military requirements of the occasion were not deemed by the higher authorities to be such as to make it advisable to accept the offer, the feeling which dictated it was not the less commended, and the fact of its having been made evinced the laudably earnest spirit with which the military cadets of Canada were inspired. The regular troops in garrison having proceeded for active service to the North-West Territories, and circumstances having rendered it advisable that the college grounds and property and Fort Frederick should not be left unguarded, the cadets assumed charge of the fort for a time, and performed picket duty at night during some three months of the college term.

During the South African War (1899-1901) seventy-four ex-cadets of the Royal Military College of Canada were on service in South Africa. Of these, twenty-five were with the Imperial Army, one with the New South Wales Regular Artillery, and the others

with the Canadian Contingent. Seven were killed in action or died of wounds.

Since the establishment of the college the graduates and ex-cadets have been an important factor, though insignificant in numbers, in the British Army. A mere recital of the minor wars and operations in which they have taken part makes most illuminating reading, showing at once the varied military activities of the British Army and the wide distribution of the Royal Military College men.

During the years 1877-1908 some of their numbers were engaged in the following military operations and expeditions: —

1877 — 1878	Burmese Expedition.
1882	Egyptian Expedition.
1884 — 1885	Soudan Expedition. Canadian Voyageurs.
1884 — 1885	Bechuanaland Expedition.
1887 — 1888	Burmese Expedition.
1887 — 1888	Expedition against the Yonnies, West Coast of Africa.
1887 — 1890	Expedition for the Relief of Emin Pasha.
1888 — 1889	Lushai Expedition.
1890 — 1891	Zhob Valley Expedition.
1891	Hazara Expedition.
1892	Isazai Expedition.
1893 — 1894	Operations against the Sofas, West Coast of Africa.
1894	Operations against Chief Nanna on the Benin river, West Coast of Africa.
1894 — 1895	Waziristan Expedition.
1895	Operations in Chitral.
1895 — 1896	Ashanti Expedition.
1896	Dongola Expedition.
1896	Operations against the Mazrui Rebels.
1897	Operations in the Bara Valley.

1897	Operations in the Bazar Valley.
1897 — 1898	Tirah Campaign.
1898	Nile Expedition.
1898 — 1899	Operations in Sierra Leone.
1899	Benin Territories Expedition.
1899 — 1901	South African War.
1900 — 1901	China Expedition.
1901 — 1902	Operations in the Ishan and Ulia Countries, Southern Nigeria.
1901 — 1902	North-West Frontier of India, Waziristan.
1901 — 1902	Aro Expedition.
1902	Operations in the Ibeku, Olekoro Country, Southern Nigeria.
1902	Operations against the Darwas Khil Waziris.
1902 — 1903	Operations against Chief Adukuai of Inaguna, Southern Nigeria.
1903	Operations Interior of Aden.
1903	Kano-Sokoto Campaign, Northern Nigeria.
1903	Somaliland Field Force.
1903	Operations in the Afikpo Country, Southern Nigeria.
1903 — 1904	Operations in Aden.
1904 — 1905	Russo-Japanese War.
1906	Natal Native Rebellion.
1908	Operations in the Mohmand Country.

A number of the graduates have risen to a high place in the Imperial Army, and have done work essential to the success of the operations in which they were engaged. One of the most distinguished of the Royal Military College men has been Brigadier-General Sir E. P. C. Girouard, K.C.M.G., D.S.O. This brilliant military engineer began his active career in Britain in 1888 by organizing the railway arrangements of the Royal Arsenal at Woolwich. During

1896-1898, while Director of Railways with the Egyptian Army, he planned, constructed, and worked some six hundred miles of railway. The laying of the railway across the desert rendered practicable the operations at Atbara and Omdurman which led to the overthrow of the Mahdi.

When war broke out in South Africa and a man of exceptional skill as a military railway engineer was needed there, the man who had made easy Kitchener's way to Khartum was sent to South Africa to make straight Roberts' path to Pretoria. His place in Egypt was taken by another graduate of the Royal Military College of Canada, Captain A. Adams. In 1906 Girouard returned to England as Assistant Quartermaster-General in the Western Administration of Chester. His stay in England was a brief one; in 1907 he was made High Commissioner of Northern Nigeria and acted as Governor of the Protectorate in 1908 and 1909, being appointed in the latter year Governor and Commander-in-Chief of the East African Protectorate.

The work done by Sir Percy Girouard for the Empire cannot be calculated in terms of money, but his engineering exploits in Egypt and South Africa were worth the entire cost of the Royal Military College since its establishment, and he was only one of many men from the same institution who were doing invaluable work for the Empire and Canada. Major-General Sir W. T. Bridges, who was to meet a gallant death early in the Great World War as commander of an Australian division at the Gallipoli peninsula, was selected as the first Commandant of the Military College of Australia; Colonel (afterwards Brigadier General) G. N. Johnson, C.M.G., D.S.O., was appointed Director of Ordnance and Commander of the Permanent Artillery, New Zealand Defence Forces; Captain G. M. Duff and Captain (afterwards Brigadier-General) H. C. Nanton, C.B., were selected, out

of fifty applicants, to lay out the defences of Chitral; Lieut.-General Sir C. M. Kirkpatrick, K.C.S.I., C.B., is Chief of the General Staff in India; Captain H. B. D. Campbell was appointed Principal of the Thompson Engineering College, Roorkee, India; Captain W. G. Stairs was second in command of the Emin Pasha Relief Expedition under the leadership of H. M. Stanley (1887-1890), and in 1891 was in command of the Katanga Expedition; and Captain H. B. Mackay, D.S.O., in 1891 was Acting Administrator to the Imperial British East Africa Company. These are but a few isolated instances of the work done by the Royal Military College graduates in the British Army, but naturally much of their best work has been done in Canada. Colonel F. M. Gaudet, C.M.G., was for sixteen years Superintendent of the Dominion Arsenal and was succeeded by Lieut.-Colonel F. D. Lafferty; Lieut.-Colonel R. W. Leonard was for a time Chairman of the National Transcontinental Railway, and had as his assistant Colonel Duncan MacPherson, one of the "Old Eighteen"; Major J. L. Weller is the engineer in charge of the building of the New Welland Canal; J. A. Stairs is Assistant Superintendent, Rolling Mills, Nova Scotia Steel & Coal Co.; F. P. Jones, General Manager, the Dominion Iron and Steel Co.; Roderick McColl, Assistant Provincial Engineer, Nova Scotia; A. R. Wetmore, Provincial Engineer, New Brunswick; James White, Deputy Minister and Assistant to the Chairman of the Conservation Commission, and formerly Chief Geographer of the Department of the Interior; Colonel H. S. Greenwood, Chief of Engineering Department of the Canadian Northern Railway; F. H. Peters, Commissioner of Irrigation of the Irrigation and Hydrographic Survey, Calgary. Many of the cadets are employed as engineers in the different departments of the Dominion Government; several hold offices as City Engineers in important Canadian cities, and two, Captain H. R. Poussette and

Gordon B. Johnson, have held appointments as Canadian Trade Commissioners, the one in South Africa and South America and the other in China and Japan. Unfortunately, Canada and the Empire do not seem to have given opportunity for the energies of all the graduates, and a number of them have found employment abroad: Macdonald, Gibbs, and Lefevre are contractors and engineers for the Chilian Northern Railway Company; Douglas is in Texas engaged in copper mining and railway enterprises; and Clapp was for twenty-two years Assistant Engineer and principal assistant with the Engineer Corps of the United States Army and connected with the construction of the Lake Washington Canal. It is worthy of note that three commandants, seven professors, and nine instructors of the college itself have been obtained from the ranks of the graduates.

The main work of the graduates and ex-cadets of the Royal Military College of Canada has been with the Regular Army of Great Britain and the Canadian Permanent Force. Honours have been won by them for distinguished services in all parts of the widely scattered Empire. Before the Great World War convulsed the nations, the following decorations and honours had been awarded the graduates of this Canadian institution; K.C.M.G. 1, C.B. 2, C.S.I. 1, C.M.G. 4, C.I.E. 1, M.V.O. 1, D.S.O. 12, A.D.C. to the King 2, Royal Humane Society's Medal 3, Diamond Jubilee Medal 3, Kaiser-I-Hind 2, Colonial Auxiliary Forces Officers' Decoration 10, Colonial Auxiliary Forces Long Service Medal 6, Medjidieh (Egypt) 3, Sacred Treasure of Japan 1, The Nile (Egypt) 1.

While honours and awards have been won by the graduates, suffering and death have likewise been their lot. The first to die in action was Captain W. H. Robinson, Royal Engineers, who on March 14th, 1892, was killed while, with conspicuous bravery, blowing in the gate of the stockaded village of Tambi, near

Sierra Leone; and since he fell the toll taken by death from the graduates and ex-cadets of the Royal Military College of Canada has been a heavy one.

When the Great World War broke out and the British Empire was threatened, graduates and cadets flocked to the colours and from the commencement of the conflict played an important part in both the Imperial and Canadian forces. The military efficiency of the Canadian Corps in the field was in no small measure due to the work of the men who had received their training in the college. Of the five original Canadian divisions three were commanded by ex-cadets: the 1st Division, by Major-General Sir A. C. Macdonell, K.C.B., C.M.G., D.S.O., now (1920) Commandant of the Royal Military College; the 2nd Division, by Major-General Sir H. E. Burstall, K.C.B., C.M.G.; the 5th Division, by Major-General G. B. Hughes, C.M.G., D.S.O. After the Armistice was signed the commanders of the 1st and 2nd Divisions had the satisfaction of leading their forces into Germany.

At the close of hostilities, on the college books were the names of 1,493 cadets, of whom about 150, although accepted, did not take the college course. Over nine hundred graduates and ex-cadets served in the war. Between August 4th, 1914, and November, 1918, 355 men were granted commissions direct from the college and 43 others enlisted with a view to obtaining commissions. The graduates played their part in all fields of action, — France, Russia, Italy, Greece, the Dardanelles, Mesopotamia, Egypt, Palestine, and South Africa. They paid a heavy price for the Empire's integrity and the liberty of the world, one in six being killed in action or dying of wounds.

The coveted Victoria Cross was won by a graduate of the college, Lieut.-Colonel W. A. Bishop, V.C., D.S.O. and Bar, M.C., D.F.C. Three other graduates were recommended for this decoration: Captain E. D. Carr-Harris, Royal Engineers, killed in action in East

Africa in November, 1914; Major F. Travers Lucas, 54th Kootenay Battalion, C.E.F., killed in action in France, March 1st, 1917; and Lieutenant (Acting-Major) G. A. Trorey, R.F. Artillery, missing and reported killed, March 2nd, 1918.

The list of decorations awarded graduates and ex-cadets of the Royal Military College for distinguished service in the Great World War is a long one. It is as follows: C.B. 17, C.M.G. 50, C.B.E. 1, O.B.E. 9, D.S.O. 115, D.S.O. with one Bar 7, D.S.O. with two Bars 2, M.C. 118, M.C. with one Bar 10, D.F.C. 3, D.C.M. 1, 1914 Star (approximate) 50, 1914-1915 Star (approximate) 100, A.D.C. to H.M. the King 1, Legion of Honour (France) 18, Croix de Guerre (France) 9, Ordre de Leopold (Belgium) 3, Croix de Guerre (Belgium) 7, Ordre de la Couronne (Belgium) 1, Crown of Italy 1, St. Maurice and St. Lazarus (Italy) 1, White Eagle (Serbia) 5, St. Sava (Serbia) 1, Karageorge (Serbia) 1, St. Stanislas (Russia) 3, St. Vladimir (Russia) 1, St. Anne (Russia) 2, The Redeemer (Greece) 2, Gold Medal of Merit (U.S.A.) 1, Order of Lafayette (U.S.A.) 1.

In addition there were Mentioned in Despatches (approximate): 127, once; 57, twice; 25, three times; 6, four times; 7, five times; 2, six times; 2, seven times.

APPENDIX VII

CHRONOLOGICAL ACCOUNT OF THE GREAT WORLD WAR

1917

Jan. 1. Germans attack at Verdun. British success in East Africa. British transport *Ivernia* sunk in the Mediterranean. Turkey declares herself free of the suzerainty of the Powers.

Jan. 2. New Kingdom of Hejas, in Arabia, recognized by Great Britain, France, and Italy.

Jan. 3. German reverse in the Bukovina and success in Rumania.

Jan. 4. Russians evacuate the Dobrudja.

Jan. 5. Russians launch offensive on the Riga front. Braila, in the Dobrudja, occupied by Teutonic forces. British forces in East Africa under Smuts reach Kibambwe.

Jan. 6. Fighting on the Sereth (Rumania).

Jan. 8. Focsani (Rumania) captured by von Falkenhayn. Allied ultimatum to Greece.

Jan. 9. British successes near Beaumont-Hamel and on the Tigris. H.M.S. *Cornwallis* sunk by submarine in the Mediterranean. British forces in Egypt capture town of Rafa. Trepoff succeeded by Prince Golitzin as Russian premier. Russian successes near Riga.

Jan. 10. Further British successes near Beaumont-Hamel. Greece accepts terms of Allied Ultimatum.

Jan. 11. Allied Powers issue reply to President Wilson's Peace Note. German Note to neutrals.

Jan. 14. Vadeni (Rumania) occupied by Teutonic forces.

Jan. 15. The Rumanian retreat stayed.

Jan. 16. Italian advance in Macedonia.

Jan. 17. Vadeni retaken by the Russians.

Jan. 19. Partial Teutonic success in attempt to force passage

of the Sereth opposite Fundeni. Khadairi Bend of the Tigris finally cleared of Turkish troops.

Jan. 22. Indecisive naval actions in the North Sea. President Wilson addresses to the Senate his " peace without victory " speech.

Jan. 23. Bulgarians cross the Danube in the Dobrudja, but are driven back.

Jan. 24. German success in Riga sector.

Jan. 25. German repulse near Verdun. Suffolk coast bombarded by German warship. British cruiser *Laurentic* sunk by mine off the Irish coast. French transport *Amiral Magon* sunk. British successes near Kut-el-Amara begun.

Jan. 27. British Admiralty declares enlarged area in the North Sea dangerous to shipping on account of war operations.

Jan. 28. Russian success in the Bukovina.

Jan. 31. German Government announces the beginning of unrestricted submarine warfare within certain specified zones.

Feb. 1. German submarines sink ten ships of 10,039 tons (total) on first day of intensified warfare.

Feb. 2. British advance on the Somme front.

Feb. 3. President Wilson breaks off diplomatic relations with Germany. American steamer *Housatonic* sunk near the Scilly Isles.

Feb. 4. President Wilson appeals to neutrals for support and suggests breaking off diplomatic relations with Germany.

Feb. 5. British victory over the Senussi.

Feb. 6. Inauguration of National Service in Great Britain. Rout of the Senussi completed.

Feb. 7. Liner *California* sunk by German submarine off Irish coast. Grandcourt, on the Ancre, captured by British.

Feb. 8. Austrian success near Gorizia.

Feb. 10. British success near Lake Doiran, Macedonia.

Feb. 11. British make progress near Kut-el-Amara.

Feb. 12. United States announces that it will not negotiate with Germany until submarine order is withdrawn. Italian seaplanes raid Pola.

Feb. 13. Sinking of White Star liner *Afric* announced. American steamer *Lyman M. Law* sunk by submarine.

Feb. 14. Count von Bernstorff and staff sail from New York.

Feb. 15. British victory on the Tigris.

Feb. 16. British repulse at Sanni-i-yat on the Tigris. British Order-in-Council passed compelling vessels sailing from neutral countries through the war zone to call at port in British or Allied territory.
Feb. 22. Seven Dutch ships en route for Holland torpedoed off Falmouth.
Feb. 23. French steamer *Athos* torpedoed in the Mediterranean.
Feb. 24. British capture Petit Miraumont. Kut-el-Amara captured by General Maude.
Feb. 25. British successes on the Ancre; Serre, Miraumont, and other places taken. Margate and Broadstairs bombarded by German destroyers.
Feb. 26. President Wilson requests authority to arm American ships.
Feb. 27. German evacuation of Gommecourt.
Feb. 28. United States exposes German intrigues in Mexico.
Mar. 1. British destroyer sunk by a mine in the North Sea.
Mar. 2. Russians occupy Hamadan in Persia. German forces take up new positions on the Ancre.
Mar. 4. Announcement made that British have taken over entire Somme front.
Mar. 5. British cavalry near Bagdad.
Mar. 6. Turks in Sinai Peninsula fall back before British advance.
Mar. 7. Russians occupy Bisitun in Persia.
Mar. 8. Death of Count Zeppelin.
Mar. 9. British force a passage over the Diala and near Bagdad.
Mar. 10. Belgian relief ship *Storstad* sunk by German submarine.
Mar. 11. Russian Revolution begins. British occupy Bagdad.
Mar. 12. Czar suspends the sittings of the Duma and the Council of the Empire. Armed guard to be placed on American steamers passing through the war zone.
Mar. 13. British capture Grevillero in France. Germans abandon their main defences west of Bapaume on a front of three and a half miles.
Mar. 14. Russian forces occupy Kermanshah in Persia. China breaks off diplomatic relations with Germany.
Mar. 15. Abdication of the Czar Nicholas; formation of national cabinet headed by Prince Lvoff. Admiral Lacaze, French Minister of Marine.
Mar. 16. Zeppelins raid London for first time since Novem-

ber, 1916. Ramsgate bombarded by German destroyers.

Mar. 17. French reach Roye. German retirement to the Hindenburg Line. Zeppelin L39 destroyed near Compiègne. British occupation of Bahriz, Mesopotamia. Resignation of the French premier, M. Briand.

Mar. 18. Australians occupy Bapaume.

Mar. 19. Feluja, Mesopotamia, captured by British. French dreadnought *Danton* torpedoed in the Mediterranean. M. Ribot, premier of France.

Mar. 20. British hospital ship *Asturias* torpedoed.

Mar. 22. United States recognizes Government of Russia set up by the Revolution.

Mar. 23. Great Britain announces new danger zone in the North Sea.

Mar. 24. Outer defences of city of La Fère captured by the French. General Alexieff appointed to chief command of the Russian armies.

Mar. 25. Dunkirk bombarded by German torpedo boats.

Mar. 26. Lagnicourt, north-east of Bapaume, captured by the British. La Feuilée and Folembray taken by the French. British forces enter Palestine and engage the Turks at Gaza.

Mar. 27. Russian reverse at Baranovitchi. Turkish forces routed at Gaza.

Mar. 30. British hospital ship *Gloucester Castle* torpedoed without warning in mid-Channel.

Mar. 31. British capture Vermond and threaten St. Quentin from three sides. British occupy Deli Abbas, sixty miles from Bagdad.

Apr. 1. British west of St. Quentin carry Savy and Savy Wood, and north of Roisel, Epéhy, and Peizière. Armed American steamer *Aztec* sunk off Brest.

Apr. 2. British advance on a ten-mile front north and east of Bapaume. President Wilson addresses Congress, calling for a declaration of war.

Apr. 3. Dallon, Griffecourt, and Arezy captured by the French. Russian reverse on the Stokhod.

Apr. 5. Roussoy, north of St. Quentin, captured by British.

Apr. 6. United States declares war on Germany.

Apr. 7. British naval raid on Zeebrugge. Cuba declares war on Germany.

Apr. 8. Austria-Hungary severs diplomatic relations with the United States.

Apr. 9. Opening of the Battle of Arras; Canadians capture

Vimy Ridge. British hospital ship *Salta* mined. Brazil severs diplomatic relations with Germany.

Apr. 11. Monchy captured by the British.

Apr. 12. Bolivia breaks off diplomatic relations with Germany.

Apr. 13. British advance on a twelve-mile front between the Scarpe and Loos.

Apr. 14. Freiburg raided by British and French air squadron. Austria offers peace to Russia.

Apr. 15. British troopship *Acadian* torpedoed in the Mediterranean.

Apr. 16. French storm front between Rheims and Soissons and take 10,000 prisoners.

Apr. 17. British victory at Gaza. British hospital ships *Lanfranc* and *Donegal* sunk by German submarines.

Apr. 20. Fight between British destroyers *Swift* and *Broke* and a German flotilla. Turkey severs diplomatic relations with the United States.

Apr. 21. British Commission to the Inter-Allied War Council arrives in the United States.

Apr. 23. Guémappe and Gavrelle, in the Arras sector, captured by the British. Samarra, Mesopotamia, occupied by British forces.

Apr. 24. French War Commission arrives in the United States.

Apr. 26. Dunkirk bombarded by German destroyers. German naval raid on Ramsgate.

Apr. 27. Guatemala severs diplomatic relations with Germany.

Apr. 29. General Pétain, Chief of the French General Staff.

May 2. British destroyers sunk by mine in the Channel.

May 3. Fresnoy captured by the Canadians. Bullecourt captured by the Australians.

May 4. French on Soissons-Rheims front capture Craonne. British transport *Transylvania* sunk in the Mediterranean. American destroyers begin co-operation with the British fleet in the war zone. Former Premier Zaimos forms Greek ministry.

May 7. Air raid on London.

May 8. Fresnoy recaptured by the Germans.

May 10. Roux, in the Arras sector, captured by the British. Naval engagement in the North Sea; German destroyers driven into Zeebrugge.

May 12. Zeebrugge attacked from sea and air.

May 14. Zeppelin L22 destroyed in the North Sea.

May 15. British drifters in the Adriatic sunk by Austrians. General Pétain succeeds General Nivelle as commander of the French armies on the western front; Foch becomes Chief of the General Staff.

May 17. British troops capture Bullecourt. Admiralty announces flotilla of United States destroyers at work in the North Sea.

May 18. President Wilson signs the Selective Draft Act. Premier Borden announces Canadian Government's intention to adopt conscription.

May 19. Russian Government declares against a separate peace. Nicaragua severs diplomatic relations with Germany.

May 20. British troops break through the Hindenburg Line.

May 21. Hindenburg Line from point east of Bullecourt to Arras in British hands.

May 22. Resignation of Count Tisza, Hungarian premier.

May 23. Zeppelin raid on East Anglia. Italian advance on the Carso.

May 25. German air raid on Folkestone.

May 26. Hospital ship *Dover Castle* torpedoed in the Mediterranean.

May 29. H.M.S. *Hilary,* armed merchantman, sunk in the North Sea.

June 1. British airmen attack Ostend, Bruges, and Zeebrugge. Workmen and soldiers seize Kronstadt and repudiate the provisional government.

June 2. British transport *Cameronian* sunk in the Mediterranean.

June 5. German air raid over Kent and Sussex. German destroyer sunk by gun-fire in the North Sea. Registration day in the United States. Conscription Bill introduced in the Canadian Parliament.

June 7. Messines Ridge captured by the British.

June 8. Italians occupy Yanina, Greece. General Pershing arrives in London.

June 9. Russian Government declines the offer of an armistice.

June 10. Allied troops enter Thessaly.

June 11. Two German seaplanes destroyed in the English Channel.

June 12. French troops occupy Corinth and Larissa. Abdication of King Constantine of Greece; Alexander, his second son, succeeds. Allied troops land at the Piraeus. British capture Saliff, on the Red Sea.

June 13. Zeppelin raid on London, the most destructive of the war; 160 deaths.
June 14. Zeppelin L43 destroyed in the North Sea.
June 15. Lord Rhonnda appointed British Food Controller.
June 16. Allied blockade of Greece raised.
June 17. Zeppelin raid on England; one raider destroyed.
June 18. Haiti severs diplomatic relations with Germany.
June 19. Sir Arthur Currie appointed to command Canadian troops in succession to Sir Julian Byng.
June 23. P.O. liner *Mongolia* sunk by a mine off Bombay.
June 24. Resignation of Zaimis Cabinet in Greece. Seidler Cabinet formed in Austria.
June 25. First American troops reach France.
June 27. French cruiser *Kléber* sunk by mine off Brest. British transport *Armadale* sunk by submarine in the Atlantic. New Greek Cabinet formed, headed by Venizelos.
June 29. Greece enters war against Germany and her allies.
June 30. Italian reverses in the Agnella Pass.
July 1. Heavy fighting around Avocourt Wood, Hill 304, and Dead Man's Hill; British draw close to Lens. Russian offensive in Galicia led by Kerensky in person; 10,000 prisoners taken.
July 2. Russian offensive in Galicia; Austro-German evacuation of Brzezany. Final units of first American Expeditionary Force reach France.
July 3. German air raid on Harwich.
July 4. Germans launch powerful offensives north of the Aisne and on the left bank of the Meuse. Resignation of von Bethmann-Hollweg as German Chancellor. Argentine Government demands apology from Germany for sinking ships.
July 5. German destroyer torpedoed in the North Sea. Canadian Conscription Bill passes its second reading.
July 6. German air raid on Nancy; French aeroplanes make night raid on Trèves, Essen, and Coblenz.
July 7. French north of Verdun capture three important salients west of Dead Man's Hill and Hill 304; British advance east of Wytschaete. Heavy fighting near Pinsk. Great air raid on London. Mathias Erzberger formulates a policy of peace without indemnities. American steamer *Massapequa* sunk by submarine.
July 8. Jezupol (Galicia) captured by Russians under Korniloff.

July 9. British battleship *Vanguard* destroyed by internal explosion (three hundred men killed). Turks reoccupy Panjwin, Khanikin, and Ksar-i-Shirin, on the Persian border.

July 10. Halicz, the key to Lemberg, captured by the Russians.

July 11. Strong German offensive north of Nieuport; British driven back on the Yser river.

July 12. Germans storm British trenches near Monçy.

July 13. Russians continue advance in Galicia to the foothills of the Carpathians.

July 14. Dr. Georg Michaelis succeeds von Bethmann-Hollweg as German Chancellor. Austrian repulse west of Kalusk; Novicka captured by Russians.

July 16. British warships capture German merchant ships off the Dutch coast.

July 17. Sir Edward Carson succeeded by Sir Eric Geddes as British First Lord of the Admiralty.

July 19. Michaelis supports ruthless submarine warfare. German success in North-East Galicia. Independence of Finland decreed by the Finnish diet.

July 20. Teutonic forces make important successes in Galicia owing to Russian mutinies. Kerensky succeeds Lvoff as Russian premier. Drawing at Washington for first selective army draft.

July 21. Resumption of fighting on the Rumanian front.

July 22. German gains on the Casemates and Californie plateau. German air raid on Felixstowe and Harwich. Merchant cruiser *Otway* torpedoed. Siam declares war on Germany.

July 23. German occupation of Tarnopol.

July 24. French retake lost ground between the Casemates and Californie plateau.

July 25. Stanislau occupied by Germans.

July 26. Russian abandonment of the Carpathian front as far as Kirlibaba Pass. Withdrawal of Allied troops from Thessaly, Epirus, and Old Greece.

July 27. British capture La Bassée. Paris bombarded by German airmen. Germans capture Kolomea. Russian retirement from Czernovitz. Rumanians make gains south-west of Bereszi.

July 30. Mutiny in German fleet at Wilhelmshaven and Kiel. H.M.S. *Ariadne* torpedoed and sunk.

July 31. Battle of Flanders begun. British and French smash German lines in Belgium on a twenty-mile

front from Dixmude to Warneton. British steamer *Belgian Prince* and American tanker *Noland* sunk by German submarines. Rumanians capture fortified positions on the river Putna.

Aug. 1. Germans recapture St. Julien. Pope Benedict issues an appeal for peace.

Aug. 2. Russian Government renews its pledge to fight till victory is achieved. General Alexis Brusiloff, Russian Commander-in-Chief, resigns, and is succeeded by Korniloff. Rear-Admiral Lacaze, French Minister of Marine, resigns.

Aug. 3. St. Julien reoccupied by the British. Czernovitz, capital of Bukovina, occupied by Austrians, changing hands for the tenth time in the war. Pola bombarded by Italian airmen.

Aug. 4. Russians cleared from nearly all of Galicia. Note of 10th August, 1914, from the Emperor William to President Wilson made public.

Aug. 5. Teutonic occupation of Varna. Canadians push forward south of Lens.

Aug. 6. Resignation of four German Secretaries of State.

Aug. 7. Austro-Germans under Mackensen begin new offensive in Moldavia. Liberia declares war on Germany. Conference of Allied and Associated powers at Washington.

Aug. 8. Von Mackensen's army north of Focsani reaches the Susitza river. Canadian Conscription Bill passes its third reading in the Senate.

Aug. 9. French advance south of Langemarck. Capture of Gorizia by the Italians.

Aug. 10. British capture Westhoek Ridge; the French, Bixschoote. Germans gain ground north of St. Quentin.

Aug. 11. Austro-German advance in Central Rumania. Arthur Henderson, British Secretary of Labour, resigns.

Aug. 12. Air raids on Southend-on-Sea and Frankfurt-on-Main. Grozesni, in Moldavia, captured by Austro-Germans.

Aug. 14. Austrian air raid on Venice. China declares war on the Central Powers.

Aug. 15. Hill 70, near Lens, captured by the Canadians.

Aug. 16. Langemarck captured by the British.

Aug. 17. French air raid behind the German lines as far east as Freiburg. British liner *City of Athens* sunk by mine off Cape Town.

Aug. 19. New Italian offensive on the Isonzo front from Tolmino to the sea. French capture German positions at Verdun.

Aug. 20. Successful French attack north of Verdun. Count Esterhazy succeeded by Alexander Wekerle as premier of Hungary.

Aug. 21. Air raid on the Yorkshire coast.

Aug. 22. Continuation of Italian offensive. German air raid over Dover, Ramsgate, and Margate. Zeebrugge bombarded by British airmen and warships. Japanese Mission to the United States arrives at Washington.

Aug. 23. Heavy fighting near Lens.

Aug. 24. Monte Santo, north-east of Gorizia, captured by Italians. Hill 304, Verdun, and Camard Wood captured by the French.

Aug. 26. British re-establish lost positions near Epéhy.

Aug. 27. Continuation of Italian offensive; fierce conflict on the Bainsizza plateau.

Aug. 28. President Wilson's reply to Pope Benedict published.

Aug. 29. Canadian Conscription Bill becomes law.

Aug. 30. Germans attack British near Epéhy.

Sept. 1. Italians make eleven-mile breach in Austrian lines on Isonzo front. German attack on Riga begun: the Dwina river crossed.

Sept. 2. Heavy fighting on the South Carso: Italian line advanced. Second mutiny of the German fleet at Wilhelmshaven and Kiel. German attack on Riga continued.

Sept. 3. Capture of Riga by the Germans. Chatham, British naval station, strongly bombarded from the air. Italian air raid on Pola.

Sept. 5. Russian retirement on wide front east of Riga. Repulse of Austrian attack on the South Carso. German submarine bombards Scarborough.

Sept. 7. Liner *Minnehaha* sunk by submarine off the Irish coast. Resignation of the French Cabinet.

Sept. 8. Publication of Count Luxburg's despatch advising destruction of Argentine ships without leaving trace (*spurlos versenkt*).

Sept. 10. Attempted *coup d'état* by General Korniloff. French in Macedonia capture Pogradeto, south-west of Lake Ochrida.

Sept. 12. Anti-German demonstration in Buenos Aires; Count Luxburg given his passports. Supreme

authority in Poland delegated by Central Powers to a regency commission.

Sept. 13. Korniloff agrees to surrender to General Alexieff; Russia proclaimed a republic. Further revelations regarding un-neutral acts by Swedish diplomatists.

Sept. 14. Italians capture western peak and crest of Monte San Gabriele. Paul Painlevé, French premier and Minister of War.

Sept. 15. Russian provisional government proclaims that Russia is to be a republic ruled under constitutional forms.

Sept. 16. French airmen raid towns in Würtemberg and Rhenish Prussia. Air raid on Venice.

Sept. 18. British penetrate German centre east of Ypres.

Sept. 21. German and Austrian reply to Pope Benedict made public. Costa Rica severs diplomatic relations with Germany.

Sept. 22. United States makes public documents proving Kaiser's complicity in plots against the United States. Argentine ultimatum to Germany. British warships bombard Ostend.

Sept. 23. German disavowal of Count Luxburg's *spurlos versenkt* despatch.

Sept. 24. German air raid on London and South-East Coast.

Sept. 25. Air raid on London and Yorkshire coast. British positions between Tower Hamlets and Polygon Wood pierced at two points in German attacks.

Sept. 26. British advance on six-mile front east of Ypres. Germany in supplementary note to the Vatican offers to evacuate Belgium "on conditions." Soukhomlinoff, Russian Minister of War, convicted of high treason and sentenced to hard labour for life.

Sept. 27. Abortive German counter-attack on Zonnebeke. Extended attack on front from the Aisne to the Argonne fails to reach French lines.

Sept. 28. Australians repulse attack on Polygon Wood. Air raid on Suffolk, Essex, and Kent.

Sept. 29. Air raid on London.

Sept. 30. German counter-attacks in the Ypres salient repulsed. Air raid on London. British forces capture Ramadie, in Mesopotamia.

Oct. 1. Air raid on London and south-east coast of England. Stuttgart, Frankfurt, Trèves, and Coblenz bombed by French aviators.

Oct. 2. French aviators bomb Baden and other German towns. Great Britain places embargo on export to Northern Neutrals. H.M.S. *Drake* torpedoed off north coast of Ireland.

Oct. 3. Failure of German attacks north of Menin road and between Tower Hamlets and Polygon Wood.

Oct. 4. Great part of Poelcapelle, near Ypres, captured by Germans. Allied air raid on enemy camp in Macedonia.

Oct. 5. Bolo Pacha's intrigues to purchase a separate peace between France and Germany laid bare by Secretary Lansing.

Oct. 6. End of the Special War Session of the United States Congress. Peru severs diplomatic relations with Germany.

Oct. 7. Uruguay severs diplomatic relations with Germany.

Oct. 9. French capture St. Jean de Mangalaere and Veldhoek; British complete capture of Poelcapelle. Mahenge, German East Africa, captured by Belgians. Von Kuhlmann in the Reichstag declares no concessions can be made regarding Alsace.

Oct. 10. Secretary Lansing publishes evidence of Germany encouraging sabotage in United States prior to that country entering the war.

Oct. 11. Germans in attack on Hill 344 (Verdun) fail after temporary success.

Oct. 12. British open new offensive in Flanders.

Oct. 13. German detachments land on islands of Oesel and Dagö, at entrance to Gulf of Riga.

Oct. 16. Capture of Oesel Island by the Germans completed.

Oct. 17. German air raid on Nancy. Moon Island, at entrance to Gulf of Riga, captured by Germans, and Russian fleet bottled up in Moon Sound. Two German raiders sink nine neutral vessels and two British escorting ships in the North Sea.

Oct. 19. United States transport *Achilles* sunk on her return trip. British auxiliary cruiser *Oceana* sunk by submarine. Zeppelin raid on London.

Oct. 21. Germans land troops on Werder Peninsula, east of Moon Island. British air raid on Saarbruck.

Oct. 22. Allied advance on either side of Ypres. Zeebrugge Mole bombed by British airmen. Petrograd reports the sinking of sixteen German vessels in the Gulf of Riga.

Oct. 23. French capture Malmaison Fort, Vanin's quarries, and villages of Allemant and Vaudesson.

Oct. 24. Austro-German offensive opens on the Isonzo front.

Oct. 25. Italians retire to front between Monte Maggiore and Augza, and begin evacuation of Bainsizza plateau. Austrians advance between Caporetto and Ronzino.

Oct. 26. Monte Santo stormed by Austro-Germans. Resignation of the Italian Cabinet. Allied advance towards Houthoulst and Passchendaele. Brazil declares war on Germany.

Oct. 27. Austro-Germans capture Gorizia and Cividale. French successes west of Houthoulst Farm. American troops reported in front-line trenches.

Oct. 28. Cormons, west of Gorizia, captured by Austro-Germans. Merckem Peninsula, south of Dixmude, captured by Allies.

Oct. 29. Udine captured by Austro-Germans. Abortive air raid on south-east English coast.

Oct. 30. Canadians reach outskirts of Passchendaele. Von Hertling succeeds Dr. Michaelis as German Chancellor.

Oct. 31. Austro-Germans reach the Tagliamento and capture bridgehead. British occupation of Beersheba in Palestine.

Nov. 2. German retirement along Chemin des Dames, north of Aisne, as a result of French success on the Ailette. Turkish defeat at Dur, Mesopotamia.

Nov. 3. German auxiliary cruiser *Marie of Flensburg* and ten patrol vessels sunk by British destroyers in the Cattegat.

Nov. 4. Tagliamento crossed north of Buzano by Austro-Germans.

Nov. 5. Italians abandon the line of the Tagliamento. Agreement between United States and Japan guaranteeing China's independence. *Alcedo*, American patrol boat, sunk in the North Sea.

Nov. 6. Passchendaele captured by the Canadians. Gaza, fifty miles south-east of Jerusalem, captured by the British. Tekrit, Mesopotamia, captured by General Maude.

Nov. 7. Italian retirement to the Livenza river. Overthrow of the Kerensky Government in Russia by the Bolsheviki.

Nov. 8. Austro-Germans cross the Livenza river and outflank Italian rearguard. General Diaz succeeds Cadorna as commander of the Italian armies.

Permanent Inter-Allied Military Commission formed.

Nov. 9. Italians fall back on the Piave river. Askalon, in Palestine, captured by the British. Allied conference at Rapallo, Italy.

Nov. 10. Asiago captured by Austro-German forces. Capture of Passchendaele Ridge completed. Esdud, in Palestine, captured by the British.

Nov. 12. Austro-Germans capture Fonzaso and Monte Longara. Turkish lines in Palestine near the coast captured. Lloyd George pleads for unified action and control of Allied armies.

Nov. 13. Austro-Germans cross the Lower Piave and establish bridgehead near Zenson. Resignation of French ministry.

Nov. 14. Jaffa-Jerusalem railway cut by the British. Feltre occupied by the Germans.

Nov. 15. Austro-Germans on the Trentino capture Cismon. Country at the mouth of the Piave flooded by Italians.

Nov. 16. Austro-Germans, after crossing the Piave above Zenson at two points, are repulsed. Clemenceau, premier of France.

Nov. 17. Naval skirmish off Heligoland.

Nov. 18. Jaffa captured by British forces. Austro-Germans capture Quero. British success in East Africa. Major-General Frederick S. Maude, British Commander in Mesopotamia, dies.

Nov. 19. Italians take up the offensive on the Asiago plateau.

Nov. 20. British success on the Cambrai front. Hindenburg Line pierced.

Nov. 21. Battle of Flanders begun.

Nov. 22. Leon Trotski, new Russian Foreign Secretary, announces Russian offer of an armistice on all fronts. Germany announces the establishment of a new barred zone in the Azores. Sabir, Turkish post in the hinterland of Aden, captured by the British.

Nov. 23. British capture Bourlon Wood. Strong Austro-German assaults on the Italian front from Asiago plateau to the Brenta river repulsed after heavy fighting.

Nov. 24. Bourlon Wood and village captured by the British.

Nov. 25. Bourlon village captured by the Germans. German forces in East Africa cross into Portuguese territory.

Nov. 27. Russian Bolshevik envoys cross German lines and open negotiations for armistice. German force captured at Nevale, East Africa.

Nov. 28. Surrender of German forces under Tafel in East Africa.

Nov. 29. British advance west of Bourlon Wood. Representatives of sixteen Allied nations meet in war conference in Paris. Lord Lansdowne urges a restatement of Allied war aims.

Nov. 30. Germans launch partially successful counter-attack at Cambrai.

Dec. 1. Allied Supreme War Council holds first meeting in Paris.

Dec. 3. German gains at Cambrai. Russo-German negotiations for armistice begin at Brest-Litovsk. Financial crisis in Austria.

Dec. 4. Austro-Germans gain at Monte Seisimol, Asiago front.

Dec. 5. German evacuation of Bourlon Wood. Russian Bolsheviki agree to cessation of fighting on all fronts for fifteen days from December 7th.

Dec. 6. Austro-German offensive in the Asiago salient. Disastrous collision in Halifax harbour between the French liner *Mont Blanc* and the Belgian relief ship *Imo*. Twenty-five German aeroplanes raid London. Revolutionary outbreak in Portugal.

Dec. 7. United States declares war on Austria-Hungary. Monte Seisimol captured by Austro-Germans. Hebron, in Palestine, captured by British.

Dec. 8. Jerusalem captured by Sir Edmund Allenby. Austrian battleship *Wien* sunk by Italian torpedo boats in Trieste harbour. Ecuador severs diplomatic relations with Germany. Portuguese Government resigns.

Dec. 9. Korniloff and Kaledines lead a Cossack revolt in South-East Russia. British and French troops on the Italian front.

Dec. 10. Republic of Panama declares war on Austria-Hungary.

Dec. 11. President Wilson signs proclamation declaring war on Austria-Hungary. Strong German attacks between the Piave and Brenta rivers.

Dec. 13. Funchal, Madeira, bombarded by German submarine.

Dec. 15. Brest-Litovsk armistice extended to January 14th,

1918. Austrian forces in Northern Italy reach Col Caprille.

Dec. 17. German destroyers sink one British and five neutral merchantmen and four armed trawlers in the North Sea. Union Government returned in Canada pledged to conscription.

Dec. 18. Austro-Germans storm Monte Asolone, above the San Lorenzo valley. Air raid on Kent, Essex, and the London area.

Dec. 20. Lloyd George outlines British peace aims. Conscription defeated in Australia.

Dec. 22. Southern slopes of Monte Asolone recovered by Italians. Nantieh, Palestine, captured by the British. Three British destroyers sunk off the Dutch coast. Peace negotiations begun by German, Austrian, Bulgarian, Turkish, and Russian delegates at Brest-Litovsk.

Dec. 23. Summit of Col de Rosso and Monte di Val Bella, on the Asiago plateau, stormed by Austro-Germans. General Guillaumet succeeds General Sarrail as Allied Commander on the Salonika front.

Dec. 24. Mannheim attacked by British air squadron.

Dec. 25. Central Powers, at the Brest-Litovsk conference, propose a peace "without forcible annexations or indemnities."

Dec. 26. Sir Rosslyn Wemyss succeeds Sir John Jellicoe as British First Sea Lord. Chinese troops occupy Harbin.

Dec. 27. Turks defeated in attempt to retake Jerusalem.

Dec. 28. Padua bombed by Austrian airmen.

Dec. 30. Germans penetrate British lines north of La Vacquerie and south of Marcoing.

Dec. 31. Italians, French, and British successfully storm Monte Tomba position.

1918

Jan. 1. German peace demands — which included Poland, Courland, Esthonia, and Lithuania — denounced by Trotski. British Air Council established.

Jan. 4. *Rewa,* British hospital ship, torpedoed without warning and sunk in the Bristol Channel.

Jan. 5. Lloyd George enunciates Great Britain's peace aims in speech to trades unionists. Extension of German barred zone round Cape Verde Islands, the Azores, and Madeira.

Jan. 7. Mutiny at Kiel, Germany's naval base. Lord Reading, Lord Chief Justice of England, High Commissioner and Special Ambassador to the United States.

Jan. 8. President Wilson lays down his Fourteen Points.

Jan. 9. British destroyer *Racoon* founders after striking rock off the Irish coast.

Jan. 12. Two British destroyers, which run ashore off the Scottish coast, wrecked.

Jan. 13. Ex-Premier Caillaux of France arrested on a charge of high treason.

Jan. 14. Yarmouth bombarded from the sea. British air attack on steel works at Thionville and railway junctions near Metz. Attempted assassination of Lenine, Russian premier.

Jan. 16. Peace negotiations between Central Powers and the Ukraine begun.

Jan. 18. Brest-Litovsk Peace Conference adjourned. Constituent Assembly, which opened at Petrograd, dissolved by Bolsheviki. Prussian Upper Chamber reaffirms exclusive right of the German Emperor to make war or peace.

Jan. 20. British Admiralty announces naval engagement at the entrance to the Dardanelles; *Breslau* sunk and *Goeben* badly damaged, and two British monitors sunk. Ostend bombarded by Allied naval forces.

Jan. 21. Sir Edward Carson, minister without portfolio, resigns from the British War Cabinet. H.M. armed boarding steamer *Louvain* sunk in the Eastern Mediterranean. Allied air raid on Courtrai, Roulers, and Rumbeke, and (in German territory) at Thionville, Bernstorff, and Arneville. General Boroevic succeeds the Archduke Charles as Austrian commander on the Italian front.

Jan. 23. Germans gain footing east of Nieuport, but are dislodged in counter-attack.

Jan. 24. Austro-Germans move defensive lines backward on the Monte Tomba front. Allied air raid at Mannheim, Saarbrucken, and Oberbilig.

Jan. 25. Von Hertling outlines German peace terms.

Jan. 26. Resignation of Hungarian Cabinet; Dr. Wekerle new premier.

Jan. 27. Cunarder *Andania* sunk off the Ulster coast.

Jan. 28. Col del Rosso and Col d'Echele captured in Italian

offensive east of Asiago plateau. Kishineff, capital of Bessarabia, captured by Rumanians.

Jan. 29. Zeebrugge bombarded by Allied aviators. Air raid on London. Italians capture Monte di Val Bella, east of the Asiago plateau.

Jan. 31. First United States casualties reported.

Feb. 1. Major-General Peyton C. March, Chief of the United States General Staff. Italians advance to head of Melago valley. Odessa and Orenburg captured by Bolsheviki.

Feb. 2. Austrians repulsed at Monte di Val Bella.

Feb. 3. Kiev captured by the Bolsheviki.

Feb. 4. Austrian air raid on Treviso. Trial of Bolo Pacha for high treason begun.

Feb. 5. Anchor liner *Tuscania,* carrying American troops, torpedoed off the Irish coast.

Feb. 6. Allied bombardment of Ostend.

Feb. 9. Treaty of peace signed at Brest-Litovsk between the Central Powers and the Ukraine.

Feb. 10. Trotski, while refusing to sign the treaty of peace, announces war over and orders demobilization on all fronts.

Feb. 11. Italians repel strong Austrian attacks west of the Brenta river. Lord Beaverbrook appointed British Minister of Propaganda.

Feb. 12. British Government refuses to recognize Treaty of Brest-Litovsk. French air raid on railway stations at Thionville, Conflans, Schembletz, and Metz-Sablon.

Feb. 14. Bolo Pacha sentenced to death for treason.

Feb. 15. Eight British patrol boats in the Straits of Dover sunk by German destroyers. Dover bombarded by German submarine. Germany renews war on Russia.

Feb. 16. Air raid on London. Sir Henry Wilson succeeds Sir William Robertson as Chief of the British Imperial Staff.

Feb. 17. Air raids on London and Dunkirk. Lord Northcliffe appointed Director of Propaganda in enemy countries.

Feb. 21. British troops occupy Jericho.

Feb. 24. German peace conditions accepted by Russia. *Wolf,* German commerce raider, arrives at Kiel.

Feb. 25. Von Hertling accepts President Wilson's principles of peace.

Feb. 26. Rumania decides to conclude peace with Central

Powers. H.M. hospital ship *Glenart Castle* torpedoed and sunk in the British Channel. Air raid on Venice.

Feb. 27. Japan proposes joint military operations with Allies in Siberia.

Mar. 1. Armed mercantile cruiser *Calgarian* torpedoed and sunk off the north coast of Ireland. Kalidine and Korniloff defeated by Bolsheviki near Rostov-on-the-Don.

Mar. 2. Kiev occupied by German and Ukrainian troops.

Mar. 3. Peace of Brest-Litovsk between Russia and the Central Powers. Sweden protests against German occupation of Finland.

Mar. 4. Finland signs treaty with Germany.

Mar. 5. Preliminary treaty of peace between Rumania and the Central Powers under which the Dobrudja is given up.

Mar. 7. Air raid on the east coast of England and London.

Mar. 8. Hit, Mesopotamia, occupied by British forces.

Mar. 9. Russian capital moved from Petrograd to Moscow.

Mar. 10. British hospital ship *Guildford Castle* torpedoed and sunk in the Bristol Channel.

Mar. 11. Air raids on Paris and Naples.

Mar. 12. Zeppelin raid on north-east English coast. British airmen raid Coblenz.

Mar. 13. Odessa captured by the Germans, who now control the Black Sea. Air raid on London.

Mar. 14. Abo, on Finland coast west of Helsingfors, occupied by the Germans.

Mar. 15. Allied air raid on Zwelbrucken.

Mar. 18. Great Britain and the United States take over Dutch shipping in British and United States ports. Flanders coast sector taken over by Belgian troops.

Mar. 19. Collision between British warship and United States destroyer *Manley* in European waters. German commerce destroyer *Alexander Agassiz* sunk in the Pacific.

Mar. 21. Opening of great German offensive from Arras to La Fère; Second Battle of the Somme begins; Bullecourt, Lagnicourt, Ronnsoy, and Hargicourt captured. Ostend bombarded by British monitors.

Mar. 22. The Germans press forward; Tergnier, Le Verguier, and Villers Faucon captured; British right flank

turned. German transport *Frankland* destroyed by mine near Noorland.

Mar. 23. British evacuate positions in bend south-west of Cambrai; Germans pierce British positions between Omignon river and the Somme. Long-range bombardment of Paris begun.

Mar. 24. Battle of the Somme crossings; Germans capture Peronne, Bapaume, Chaulnes, and Ham. British air raids on Cologne and Metz.

Mar. 25. German advance continues; Guiscard, Nesle, Noyon, and Liancourt Wood captured.

Mar. 26. German check west of Roye and Noyon; German successes south of Peronne. British retirement on wide front. The "whippet" tanks make their appearance. Foch assumes supreme command of Allied armies in the West.

Mar. 27. Lassigny, Montdidier, Proyart, Morcourt, and Albert captured by the Germans.

Mar. 28. German check on the Arras front. Destruction of Turkish army in area of Hit, Mesopotamia. British forces cross the Jordan.

Mar. 29. Mézières captured by the Germans. Halt of the big offensive.

Mar. 31. Germans capture Hangard; Moreuil Wood, Grivesnes, Monchel, and Assainvillers retaken by the Allies.

Apr. 1. White Star liner *Celtic* torpedoed off Irish coast, but makes port safely. British threat to Aleppo, in Mesopotamia. Draft riot in Quebec.

Apr. 2. Count Czernin declares Wilson's fourteen points basis for discussion, but Alsace-Lorraine the stumbling-block. Turks begin occupation of Batum, Kars, and Ardahan, districts of the Caucasus.

Apr. 4. French pressed back between the Luce and the Avre; attacks on Grivesnes repulsed.

Apr. 6. End of the Second Battle of the Somme.

Apr. 9. Renewed German offensive; Battle of the Lys begins; Portuguese and British driven back four miles between Givenchy and La Bassée. British Military Service Bill places every man up to fifty at disposal of the Government and includes conscription for Ireland.

Apr. 10. Battle of the Lys; Ploegsteert village, Messines, and Wytschaete Ridge captured by Germans, the two latter recaptured; British withdrawn from Armentières.

Apr. 11. Battle of the Lys; Germans capture Merville and Messines; British evacuate Nieppe. Sir Douglas Haig's appeal to his troops. Emperor Charles's letter to Prince Sixtus de Bourbon published, in which he acknowledges France's claim to Alsace-Lorraine.

Apr. 12. Battle of the Lys; British line further driven in. Air raids on Paris, London, and the east coast of England.

Apr. 13. Battle of the Lys; struggles for possession of Neuve Église. German occupation of Helsingfors.

Apr. 14. Germans capture Neuve Église. Resignation of Count Czernin, Austrian prime minister.

Apr. 15. German occupation of Bailleul; British begin evacuation of Ypres salient. Ten German trawlers sunk in the Cattegat. Turks recapture Batum.

Apr. 16. Wytschaete and Spanbrockmolen captured by the Germans; Méteren lost and retaken by the French. Third reading of British Military Service Bill. Execution of Bolo Pacha.

Apr. 17. Von Arnim's assault on Kemmel repulsed.

Apr. 18. Von Quast's thrust between Merville and Givenchy parried. British Military Service Bill passed into law. Viscount Milner succeeds Earl Derby as Secretary of War. Tisza succeeds Wekerle as Hungarian premier.

Apr. 19. Americans, attacked at Seichepray, near Toul, inflict heavy losses.

Apr. 21. Van, Turkish Armenia, captured by Armenians.

Apr. 22. Guatemala declares war on Germany.

Apr. 23. British naval exploit; Zeebrugge and Bruges Canal blocked by sinking of old cruisers loaded with cement. Villers-Bretonneux captured by the Germans.

Apr. 24. Brilliant Australian counter-attack at Villers-Bretonneux.

Apr. 25. Kemmel village and hill captured by the Germans.

Apr. 26. Fluctuating battle for Kemmel village and Locre.

Apr. 27. Germans capture Voormezeele, but are driven out by counter-attack. Kifri, Mesopotamia, occupied by the British. Kars captured by the Turks. German Government decrees three meatless days a week.

Apr. 28. British liner *Orissa* torpedoed in English waters.

Apr. 29. Locre changes hands three times; Germans repulsed

with heavy losses; Belgians repulse Germans on Ypres-Straden railway. End of the Battle of the Lys.

Apr. 30. French recapture Locre. Prinzip, who precipitated the war by assassinating the Archduke Ferdinand and his wife on June 28th, 1914, dies in Austrian prison.

May 1. Sebastopol occupied by the Germans. British occupy Mezreh, Mesopotamia. Allied War Council at Versailles. Application of conscription to Ireland postponed by Order-in-Council.

May 4. Viscount French Lord-Lieutenant of Ireland.

May 6. Peace of Bucharest between Rumania and the Central Powers.

May 7. British occupation of Kirkuk, Mesopotamia. Nicaragua declares war on Germany.

May 10. Ostend harbour blocked by a sunken ship. Italians capture Monte Corno. *Sant' Anna,* Italian transport, sunk.

May 13. Meeting of the Emperors, who agree upon a close military alliance for twenty-five years. German Emperor proclaims Lithuania an independent state.

May 14. Austrian battleship torpedoed in Pola harbour.

May 15. British Admiralty closes by mine-field 22,000 square miles in northern part of the North Sea.

May 16. Italians capture Monte Asolone. British air raid on Saarbrucken.

May 17. Mutiny in a German division near Dvinsk, Russia. Sixty prominent Sinn Feiners, including De Valera, arrested in Ireland.

May 18. British daylight air raid on Cologne.

May 19. Ville-sur-Ancre, near Marancourt, captured by Australians.

May 21. British air raid on Mannheim.

May 22. Thirty German aeroplanes bomb Paris.

May 23. Allied air raid on Mannheim, Karusewald, and Bruges. British troopship *Moldavia,* carrying American troops, torpedoed and sunk off south-east English coast. Costa Rica declares war on Germany.

May 24. British steamer *Inniscarra* torpedoed and sunk. Mutiny of German soldiers at Dvinsk.

May 25. German superdreadnought U-boat sinks American transport.

May 25 — June 14. German submarines sink nineteen ships

off coasts of New Jersey, Delaware, Maryland, and Virginia.

May 26. British transport *Leasowe Castle* torpedoed and sunk in the Mediterranean. Italians force Austrian defences at Capo Silo, on the Lower Piave.

May 27. Third Battle of the Aisne begins; German offensive on a forty-mile front advances twelve miles; capture of the Chemin des Dames. British airmen bombard Durazzo (Albania) and sink Austrian torpedo boat.

May 28. German successes continue; capture of Sancy.

May 29. Germans capture Soissons.

May 30. Germans advance to within two miles of Rheims. Greek success against Bulgarians on the Vardar. German submarine sinks twelve Irish fishing boats.

May 31. German advance continues. United States troopship *President Lincoln,* returning from Europe, sunk in the war zone.

June 2. Northern part of Château-Thierry occupied by von Boehn; French counter-attack between the Ourcq and the Marne.

June 3. Fluctuating battle between Soissons and Noyon.

June 5. Battle of the Aisne; the turn of the tide. British steamer *Harpathian* sunk off Virginia Capes.

June 6. Successful counter-attack by American troops west of Château-Thierry.

June 8. Austrian battleship *Svent Istvan* sunk off the Dalmatian coast by Italian destroyers.

June 9. New German drive between Montdidier and Noyon meets with modified success.

June 10. German advance continues; Foch shortens his line.

June 11. An Austrian dreadnought destroyed and another badly damaged by torpedoes near Dalmatian islands.

June 13. The German advance stayed. Austrian attack on Tonale Pass repulsed. H.M. armed mercantile cruiser *Patia* torpedoed and sunk. Tabriz, Persia, occupied by the Turks.

June 15. Malinov succeeds Rodoslavov as Bulgarian premier. Failure of new Austrian offensive west and east of the Brenta; partially successful on the Piave.

June 17. Austrians cross the Piave.

June 18. The Piave in flood.

June 19. Austrians driven back on the Montello. German attack on Rheims from three sides repulsed.

June 21. Cossacks defeated in Siberia by Bolsheviki.

June 22. Austrian withdrawal across the Piave begins.
June 23. Austrians driven across the Piave with enormous losses.
June 24. Von Kuhlmann declares that no decision can be obtained in the field.
June 25. British transport *Orissa* sunk by two submarines off Irish coast; the submarines also sunk.
June 27. H.M. *Llandovery Castle* torpedoed by submarine and sunk 116 miles south-west of Fastnet. First contingent of United States troops arrives in Italy.
June 28. British and French advance in Flanders.
June 29. Monte di Val Bella captured by Italians.
June 30. Col di Rosso captured by Italians.
July 1. Americans capture village of Vaux, in the Château-Thierry region. United States transport *Covington* torpedoed on her home trip.
July 2. Italians restore the old line in the Monte Grappa region.
July 3. Death of Sultan Mohammed V. Death of Lord Rhonnda, British Food Controller.
July 4. Australians capture Hamel.
July 5. British air raid on Coblenz.
July 6. British air raids on railway sidings at Metz, Sablenz, and Saarbrucken. French and Italian drive in Albania begins. Count Mirbach, German ambassador in Moscow, assassinated by bomb.
July 7. British naval air raid on Constantinople. Chita, on Trans-Siberian railway, captured by Czecho-Slovaks.
July 9. Admiral Von Hintz succeeds von Kuhlmann as German Foreign Minister. Fieri, Albanian coast, captured by Italians and French. Naval air raid on Ostend and Zeebrugge.
July 11. Italians and French capture Berat, Albania.
July 14. French steamer *Djemnach* torpedoed by submarine in the Mediterranean.
July 15. Second Battle of the Marne. Germans begin drive from Vaux to the Champagne region; cross the Marne between Château-Thierry and Dormans, but are checked east of Rheims. H.M. *Barunga* torpedoed and sunk by German submarine. Haiti declares war on Germany.
July 16. Ex-Czar Nicholas murdered by Bolsheviki at Ekaterinburg in the Urals.
July 17. Germans gain ground near Epernay, but are gen-

erally held. Cunard liner *Carpathia* sunk by German submarine.

July 18. Foch assumes the offensive. Great French counter-attack between Soissons and Château-Thierry: 16,000 prisoners captured.

July 19. Germans in retreat on the Marne. Meteren, on Ypres front, captured by British. Honduras declares war against Germany.

July 20. German retirement over the Marne. British fleet sweep Bight of Heligoland. White Star liner *Justicia* torpedoed and sunk in Irish waters.

July 21. Château-Thierry occupied by the French troops.

July 22. Allies cross the Marne in pursuit.

July 23. German resistance stiffens in the Marne salient. French driven out of Vincelles; but capture Mailly-Raineval, Sauvillers, and Aubvillers. H.M. armed mercantile cruiser *Marmora* torpedoed and sunk.

July 24. Allied advance between the Ourcq and the Marne.

July 26. German retirement between the Ourcq and the Ardre.

July 27. Allies capture Fère-en-Tardenois and Roncières.

July 29. Merris, south-west of Bailleul, captured by the Australians.

July 29 — 31. Fluctuating battle on the Marne.

July 31. Von Eichhorn, German military dictator, assassinated at Kiev.

Aug. 1. Mangin's troops sweep forward in new offensive.

Aug. 2. French capture Soissons. Allied occupation of Archangel.

Aug. 3. Allied advance on thirty-mile front between the Aisne and the Vesle. Ambulance transport *Warilda* torpedoed and sunk near a British port. British contingent reaches Vladivostok.

Aug. 4. French troops reach the line of the Aisne and the Vesle.

Aug. 5. Allies force passage of the Aisne and the Vesle. American troops enter Fismes.

Aug. 6. Americans advance north of the Vesle. Foch created a Marshal of France.

Aug. 8. Last Battle of the Somme; British open offensive between the Ancre and the Avre.

Aug. 9. Morlancourt captured by the Allies; Montdidier outflanked.

Aug. 10. German garrison at Montdidier surrenders; Amiens freed from danger by Allied advance.

Aug. 11. Advance stayed by German counter-attacks. British air raid on Karlsruhe. Arrival of first Japanese contingent at Vladivostok.

Aug. 13. British Government officially recognizes Czecho-Slovakia as a nation.

Aug. 14. French capture Ribecourt, on the Oise.

Aug. 15. Canadians capture Damery and Parvillers, northwest of Roye.

Aug. 16. French cruiser *Dupetit Thouras* sunk by submarine. Tank steamer shelled off Cape Hatteras by a submarine. The two Emperors meet in Berlin.

Aug. 18. Mangin begins advance between the Oise and the Aisne. Mangin's troops capture Morsain.

Aug. 19. Mangin holds western heights of the Aisne.

Aug. 20. Battle joined on 100-mile front between the Avre and the Vesle.

Aug. 21. Byng strikes with British Third Army; Beaucourt, Aichet-le-Petit, and Courcelles taken. Lassigny captured by the French. Independent air force bombards Frankfurt, Cologne, Mannheim, and Trèves.

Aug. 22. British capture Albert; French reach the Divette river.

Aug. 23. Chuignolles, Chuignes, and Bray captured by Australians; footing won on the Thiépval Ridge. British bomb Frankfurt, Cologne, and Mannheim.

Aug. 24. British storm Thiépval Ridge. Padua bombed by Austrian airmen.

Aug. 25. British capture Mametz, Martinpuich, and Le Sars.

Aug. 25 — 28. Allied air raids on Constantinople.

Aug. 26. Fresnoy captured by the French. Monchy, Wancourt, and Guémappe captured by the British.

Aug. 27. French capture Roye; British take Roux and Gavrelle.

Aug. 29. Noyon captured by the French; Bapaume by the British.

Aug. 30. Eterpigny captured by the British. Australians cross the Somme and storm trenches east of Cléry.

Aug. 31. Mont St. Quentin captured by the Australians; British take Marrières Wood. Captain Cromie, British naval attaché, murdered in the Embassy at Petrograd.

Sept. 1. British capture Péronne, Rancourt, and Bullecourt. British advance in Macedonia.

Sept. 2. British and Canadians break through the Wotan Switch Line.
Sept. 3. German retirement from the Scarpe to the Somme.
Sept. 4. British reach the Canal du Nord.
Sept. 5. Rawlinson and Débeney cross the Somme; Germans driven from the Vesle; evacuation of Lens by the Germans.
Sept. 6. Ham captured by the French; British advance east of Peronne. British transport *Persia,* carrying United States troops, torpedoed.
Sept. 7. Havrincourt Wood captured by Byng; Humbert takes Tergnier.
Sept. 8. British and French in contact with old Hindenburg Line from Cambrai to near Soissons.
Sept. 9. British evacuate Baku.
Sept. 10. Submarine shelters at Bruges and docks at Ostend bombed by Allies.
Sept. 12. Americans launch strong offensive at St. Mihiel; First American Army in action; British capture Havrincourt and Epéhy. Union liner *Galway Castle* sunk without warning.
Sept. 13. Americans break the St. Mihiel salient.
Sept. 14. Heights of the Meuse cleared of German forces. British advance near Cambrai and around La Bassée. Metz and Courcelles bombed by Allied airmen. Germany offers separate peace to Belgium, which is rejected. Austria addresses note to belligerents inviting the opening of peace negotiations. Americans within ten miles of Metz.
Sept. 15. British capture Maissemy. Allied offensive opens on the Serbian front.
Sept. 16. Vailly and Mont des Singes captured by the French. Bulgarian line broken north-east of Monastir. President Wilson replies to Austria's invitation to peace conference. British drive in Mesopotamia.
Sept. 17. Germans' counter-attack captures Mœuvres.
Sept. 18. Serbians cross the Prilep river.
Sept. 19. Allenby begins offensive in Bulgaria. British recapture Mœuvres.
Sept. 20. Capture of Nazareth by the British; collapse of Turkish resistance in Palestine.
Sept. 21. Serbians reach Vardar. Resignation of the Japanese Cabinet.
Sept. 22. Bulgarians fall back from the Doiran front.

Sept. 23. Serbians occupy Gradsko; French capture Prilep. Amman, Palestine, occupied by British.

Sept. 24. British capture Selency; French, Vendeuil, Dallon, and Essigny.

Sept. 25. Babuna Pass and Ishtip occupied by Serbs. British troops enter Bulgaria opposite Kosturino. Tiberias occupied by Allenby's troops. American long-range gun bombards Metz.

Sept. 26. Allied offensive opens from Champagne to the Marne; great advance made. Bulgarian request for an armistice refused. Strumnitza, Bulgaria, captured by the British.

Sept. 27. Haig begins advance on Cambrai; 10,000 prisoners taken. Five thousand Turks captured in Palestine. Von Hertling, German Chancellor, resigns.

Sept. 28. Haig's forces within two miles of Cambrai; Zonnebeke and Poelcapelle captured by the Belgians; Wytschaete also taken. Montigny and Revillon captured by the French. Peace riots in Vienna.

Sept. 29. Dixmude and Passchendaele captured by Belgians; Messines, by the British. Allied advance between Cambrai and St. Quentin; German positions outflanked. Bulgaria accepts Allies' conditions. Surrender of 10,000 Turks at Zaza station, Palestine.

Sept. 30. Armistice signed with Bulgaria. Prince Maximilian of Baden becomes German Chancellor.

Oct. 1. French capture St. Quentin; British Crèvecœur, Rumilly, Levergies, and Joncourt. British occupy Damascus.

Oct. 2. Great German retreat between Lens and Armentières; Australians take La Bassée and Aubers. Raid on Durazzo by Italian and British cruisers.

Oct. 3. British capture Le Catelet, and occupy Armentières.

Oct. 4. Germany addresses through Switzerland a note to President Wilson inviting peace negotiations and an armistice. Abdication of Czar Ferdinand of Bulgaria in favour of Prince Boris. Japanese steamer *Hiramo Maru* torpedoed and sunk off the Irish coast.

Oct. 5. Maximilian proposes in the Reichstag that the Entente state their terms.

Oct. 6. German positions turned on the Rheims heights. Allenby's forces occupy Royat.

Oct. 7. El Basan occupied by the Italians.

Oct. 8. The Siegfried Line completely broken; great Allied advance. Allenby's forces occupy Beirut. President Wilson declares evacuation of Allied territory a prerequisite for an armistice. Sir Eric Geddes arrives at Washington as head of British Naval Mission.

Oct. 9. Canadians first to enter Cambrai.

Oct. 10. Le Cateau occupied by Haig's troops. Resignation of Turkish Cabinet. Irish mail boat *Leinster* torpedoed and sunk.

Oct. 11. Chemin des Dames occupied by the French. Baalbek occupied by Allenby's forces. Izzet Pacha, Turkish Minister of War.

Oct. 12. Serbians re-enter Nish. Germany, in reply to President Wilson, agrees to withdraw from occupied territory and to satisfy other demands. Japanese troops arrive in Irkutsk.

Oct. 13. Laon captured by the French. Tripoli occupied by Allenby's troops.

Oct. 14. King Albert's advance between Dixmude and Comines. Durazzo captured by the Italians. Turks appeal to President Wilson for peace.

Oct. 15. French encircle Roulers; Belgians capture Iseghem and Cortemarck. Homs occupied by Allenby's forces.

Oct. 16. Menin captured by the Allies under King Albert. Americans capture Grand Pré, north of Argonne Forest.

Oct. 17. Lille captured by British under Birdwood. Evacuation of Douai by the Germans. Ostend occupied by British naval forces. Czechs occupy Prague.

Oct. 18. Roubaix and Tourcoing captured by Allies.

Oct. 19. Zeebrugge and Bruges reoccupied by Belgians. Germans driven beyond the Lys.

Oct. 20. Capture of Denain by the Allies. Germany, in reply to Wilson, agrees to recall submarines.

Oct. 22. Chancellor Maximilian protests against a "peace of violence." Herr Liebknecht released from prison.

Oct. 23. President Wilson agrees to refer question of armistice to the Allies. British capture Grave di Papadopoli, on Piave front.

Oct. 24. Battle of the Rivers begins; the last great battle in the west. Independent Socialist leader Haase demands that monarchy give way to a republic in Germany. Allied offensive on the Piave front.

Oct. 26. Ludendorff's resignation accepted. Allies cross the Piave. Aleppo occupied by Allenby's forces.

Oct. 27. Von Lossberg succeeds Ludendorff as First Quartermaster-General. Austria-Hungary accepts Wilson's conditions and craves for an armistice.

Oct. 28. Kaiser signs decree assenting to reforms demanded by the Reichstag. Austrians in wide retirement on Piave front.

Oct. 29. Kaiser withdraws to Army Headquarters at Spa. Austro-Hungarian Command seeks armistice with Italy. Bohemia declares a republic.

Oct. 30. Capitulation of Turkish armies signed at Mudros. Surrender of Turkish army on the Tigris. Austrian rout on the Piave front. Meeting of Supreme War Council at Versailles.

Nov. 1. Austrian superdreadnought *Viribus Unitas* sunk by Italian monitor.

Nov. 2. Capture of Valenciennes. British on Asiago plateau cross into Austrian territory.

Nov. 3. Austria-Hungary signs armistice with Diaz. Italian troops landed at Trieste and Trent. Mosul, Mesopotamia, occupied by British.

Nov. 4. Cavan crosses the Tagliamento. Armistice with Austria-Hungary becomes effective.

Nov. 6. Sedan occupied by American troops.

Nov. 8. Foch receives German plenipotentiaries in the Forest of Compiègne; time for acceptance of Armistice to expire in seventy-two hours. Bavaria declared a republic.

Nov. 9. Prince Max issues declaration announcing the Kaiser's abdication. Friedrich Ebert, German Chancellor. H.M.S. *Britannia* torpedoed and sunk at western entrance to the Straits of Gibraltar.

Nov. 10. Capture of Mons by the Canadians. Kaiser and his staff escape across the Dutch frontier. King of Würtemberg abdicates.

Nov. 11. Armistice signed with Germany at 5 a.m.; hostilities cease at 11 a.m. (Paris time).

Nov. 12. Republic proclaimed at Berlin. Abdication of the Emperor Karl. German evacuation of occupied territory begun. Allied fleet passes through the Dardanelles.

Nov. 13. Allied fleet off Constantinople. Republics declared in Würtemberg and Hesse. German Crown Prince interned in Holland.

Nov. 14. German forces from East Africa surrender at Chambezi river, Northern Rhodesia.
Nov. 15. British naval representatives meet in the Forth. German delegates come to arrange the carrying out of the naval terms of Armistice.
Nov. 17. French troops make state entry into recovered Lorraine.
Nov. 18. Belgian troops enter Brussels.
Nov. 19. Metz occupied by the French.
Nov. 20. Surrender at Harwich of twenty German submarines under Armistice terms. King Albert makes state entry into Antwerp.
Nov. 21. Surrender off the mouth of the Firth of Forth, of 5 German battle cruisers, 9 battleships, 7 light cruisers, and 49 destroyers. Namur occupied by the British.
Nov. 25. Foch at Strassburg.
Nov. 27. Last Germans leave Belgium.
Nov. 28. Ex-Kaiser signs formal renunciation of Crown of Prussia and German Imperial Crown.
Dec. 1. British forces cross German frontier and proceed towards the Rhine. American troops cross frontier and occupy Trèves. German ex-Crown Prince formally renounces the succession.
Dec. 2. British War Cabinet decides to press for extradition of Wilhelm II.
Dec. 3. Finland evacuated by German troops.
Dec. 4. H.M.S. *Cassandra* sunk by mine in the Baltic.
Dec. 6. Advance guard of British army enters Cologne.
Dec. 12. British troops commence occupation of Cologne bridgehead.
Dec. 13. President Wilson lands at Brest.
Dec. 14. French troops occupy Mayence. Armistice extended until January 17.
Dec. 21. M. Protitch, premier of Jugo-Slavia.
Dec. 29. Ireland declared a republic by the Sinn Fein.

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Jan. 2. Germans evacuate Riga.
Jan. 4. Plan for League of Nations made public.
Jan. 12. Supreme Inter-Allied Peace Conference assembles in Paris.
Jan. 14. Allied Council at Paris decides on representation of British Overseas Dominions at Peace Conference.

Jan. 18. Allied Peace Conference at Versailles: Georges Clemenceau, premier.
Feb. 14. League of Nations plan read to plenary session of Peace Conference.
Feb. 15. President Wilson sails from Brest for Boston.
Feb. 16. The Armistice extended indefinitely.
Feb. 18. Italy declines to submit territorial dispute with Jugo-Slavs to President Wilson's arbitration.
Feb. 19. Premier Clemenceau shot at and wounded.
Feb. 21. German National Assembly adopts provisional constitution; Friedrich Ebert, President.
Feb. 26. President Wilson defines League of Nations before members of the Senate and House Foreign Committee.
Mar. 6. Disturbance in Canadian camp at Rhyl, Wales.
Mar. 14. President Wilson in Paris.
Mar. 21. Italian delegates decide to withdraw from Peace Conference unless Fiume is assigned to Italy.
Mar. 31. Withdrawal of Canadian Military Expedition to Siberia announced.
Apr. 1. Covenant of the League of Nations drafted at Paris.
Apr. 5. Hapsburgs banished from Austria.
Apr. 20. President Wilson at meeting of "Big Four" strongly opposes Fiume being assigned to Italy.
Apr. 27. Revised draft of the Covenant of the League of Nations made public in Washington.
Apr. 28. First of German delegates to Peace Conference arrive. Revised form of League of Nations adopted without a dissentient voice.
May 4. Chinese delegates to Peace Conference resign as protest against award of Shantung to Japan.
May 6. British Government recognizes independence of Finland.
May 7. Allied and Associated Powers and German delegates meet at Versailles.
June 1. Rhine republic proclaimed in various Rhine cities.
June 2. Peace terms with Austria handed to her delegates.
June 19. German Cabinet, headed by Philip Scheidemann, resigns. Orlando Government in Italy resigns.
June 21. German ships of war scuttled at Scapa Flow.
June 24. France demands reparation for the sinking of the German fleet at Scapa Flow.
June 25. Proclamation in Germany announces conclusion of peace; Von Hindenburg resigns chief command of the German army.
June 28. German delegates sign peace terms at Versailles.

War with Germany formally ended by signing of treaty of peace between Germany and the delegates of twenty-six Allied and Associated Powers.

July 9. German National Assembly ratifies peace treaty.

July 10. President Wilson delivers peace treaty to the Senate.

Sept. 8. British begin evacuation of Archangel.

Sept. 10. Austria signs peace treaty.

Sept. 15. United States Senate begins formal consideration of peace treaty in open session. 25,000 Italian troops under D'Annunzio in Fiume.

Sept. 28. President Wilson's tour in favour of the peace treaty interrupted by illness. Plebiscite in Luxemburg decides by majority in favour of the retention of the Grand Duchess and a customs union with France.

Oct. 2. King and Queen of the Belgians arrive in New York.

Oct. 7. Italy ratifies the peace treaty.

Oct. 10. Great Britain ratifies the peace treaty.

Oct. 12. France ratifies the peace treaty.

Oct. 14. House of Commons of Canada approves the peace treaty. President Poincaré signs decree of general demobilization.

Oct. 17. Austria ratifies the peace treaty.

Oct. 29. Sinn Fein parliament convened in Dublin.

Oct. 30. Japan ratifies the peace treaty.

Nov. 7. United States Senate adopts Preamble to Lodge's "slate of reservations" (known as Reservation No. 1).

Nov. 10. Ratification of peace treaty by Canada.

Nov. 19. United States Senate refuses to ratify peace treaty by fifty-one votes to forty-one.

Nov. 21. Supreme Council gives Poland mandate over Eastern Galicia for twenty-five years under League of Nations.

Nov. 27. Peace treaty with Bulgaria signed in Paris.

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